DOCUMENT RESUME

ED 111 557 56 RC 008 738

AUTHOR Harrison, Helene W.
TITLE Final Evaluation Report of the Harlandale Independent School District's Bilingual Education Program, 1974-75.
INSTITUTION Harlandale Independent School District, San Antonio, Tex.
SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C. Div. of Bilingual Education.
PUB DATE 75
GRANT OEG-0-9-530014-4810
NOTE 82p.; For related document, see ED 091 108

EDRS PRICE MF-$0.76 HC-$4.43 Plus Postage
DESCRIPTORS Achievement Tests; *Bilingual Education; *Elementary School Students; English (Second Language); Junior High School Students; Language Instruction; *Mexican Americans; *Program Evaluation; Reading Achievement; Self Concept; Standardized Tests; Statistical Data; *Test Results; Vocabulary Development
IDENTIFIERS Elementary Secondary Education Act Title VII; ESEA Title VII; *Texas (Harlandale)

ABSTRACT

Comprised of pre-K-6 and LLD (Language Learning Disability) classrooms, the program is designed to provide bilingual education for pupils who have limited English speaking ability. There are 1,612 pupils from 7 elementary schools and 1 junior high school. Program objectives are to: (1) prevent their educational retardation by instructing them in Spanish while developing their command of English; (2) enhance their understanding and congitive development in both languages; (3) give them the advantage of becoming literate in both languages; and (4) instill a knowledge of and pride in their bicultural heritage. Project components are: development of and revision of curriculum materials for bilingual classes, bilingual instruction in grades pre-K-6 and LLD, staff development, and parental and community involvement. However, this report deals with the instructional component. This 1974-75 evaluation report discusses the test results from the: Peabody Picture Vocabulary Test, Boehm Test of Basic Concepts, School Readiness Survey, Comprehensive Test of Basic Skills, Prueba de Lectura (Spanish reading test), Bilingual Education Program Test in Social Studies and Science (a copy included in the appendix). Projected Self-Concept Inventory, and Wide Range Achievement Test. These tests were administered on a pre- and posttest basis; both English and Spanish versions were administered. (NO)

ED111557

RECEIVED
SEP 10 1975

FINAL EVALUATION REPORT

OF THE

HARLANDALE INDEPENDENT SCHOOL DISTRICT'S

BILINGUAL EDUCATION PROGRAM

1974-75

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Submitted To

Mrs. Lydia M. Calonge
Project Coordinator

and

The U.S. Office of Education as a report of the first year's progress, under the provisions of Title VII of P.L. 89-10, as amended.

Grant # OEG - 0-9-530014-4810

By

Dr. Helene W. Harrison
Evaluator

RC008738

RECOMMENDATIONS

1. Due to the low financial resources of this district, it is an absolute necessity that federal funding be continued in order for bilingual education to have its opportunity to help Mexican-American children achieve a quality education.

2. Fall Peabody and Boehm results show that many pupils in this district enter school with a large vocabulary/concept disadvantage. The importance of this problem cannot be emphasized too strongly. Extensive work must be done to attempt to overcome this disadvantage, not only by first and second grade teachers but by teachers at all grade levels. Recognition of this problem and suggestions for dealing with it should be a part of the pre-service training program.

3. Inadequate reading comprehension is a serious problem which effects all other academic endeavors, including math, because of written problems. It is vital that a strong attempt be made by the director to help teachers in this area. It is also imperative that a study of the skills involved in math concepts and application, language expression, and reading comprehension--the weak areas of performance as indicated by achievement test results--be made by project teachers with the help of a consultant who can suggest techniques for successful teaching of these skills. The best opportunity for this would be pre-service training.

TABLES

I. Teachers, Schools, and Summary of Pupil Data

II. Peabody Picture Vocabulary Tests--Fall Grade Level Means

III. Peabody Picture Vocabulary Tests--Interquartiles and Medians

IV. Peabody Picture Vocabulary Tests--Percentage of Pupils attaining Objective

V. Peabody Picture Vocabulary Tests--Mean Increases

VI. A Comparison of Bilingual Vs. Nonbilingual Kindergarten Concept Development

VII. Boehm Test of Basic Concepts--Percentage of Pupils Attaining Objective

VIII. Boehm of Basic Concepts--Mean Increases

IX. Boehm Test of Basic Concepts--Interquartiles and Medians--First Grade

X. Boehm Test of Basic Concepts--Interquartiles and Medians--Second Grade

XI. School Readiness Survey--Percentage of Pupils Attaining Objective

XII. Comprehensive Test of Basic Skills-First Grade--Percentage of Pupils Attaining Objective and Raw Score and Scale Score Means

XIII. Comprehensive Test of Basic Skills--Second Grade--Percentage of Pupils Attaining Objective

XIV. Comprehensive Test of Basic Skills--Third Grade--Percentage of Pupils Attaining Objective

XV. Comprehensive Test of Basic Skills--Fourth Grade--Percentage of Pupils Attaining Objective

XVI. Comprehensive Test of Basic Skills--Fifth Grade--Percentage of Pupils Attaining Objective

XVII. Comprehensive Test of Basic Skills--Sixth Grade--Percentage of Pupils Attaining Objective

XVIII. Comprehensive Test of Basic Skills--Second Grade--Interquartiles and Medians

XIX. Comprehensive Test of Basic Skills--Third Grade--Interquartiles and Medians

00004

XX. Comprehensive Test of Basic Skills--Fourth Grade--Interquartiles and Medians

XXI. Comprehensive Test of Basic Skills--Fifth Grade--Interquartiles and Medians

XXII. Comprehensive Test of Basic Skills--Sixth Grade--Interquartiles and Medians

XXIII. Prueba de Lectura--Percentage of Pupils Attaining Objective

XXIV. Prueba de Lectura--Means and Standard Deviations

XXV. Prueba de Lectura--Mean Increases

XXVI. BEP Test in Social Studies and Science--Percentage of Pupils Attaining Objective

XXVII. Projected Self-Concept Inventory--Percentage of Pupils Attaining Objective

XXVIII. Projected Self-Concept Inventory--Means and Standard Deviations

XXIX. Projected Self-Concept Inventory--Mean Increases

XXX. Wide Range Achievement Test--Percentage of Pupils Attaining Objective and G.E. Mean Increase

XXXI. Psychomotor Skills Learned and Demonstrated--Percentage of Pupils Attaining Objective

FINAL EVALUATION REPORT

This program comprises classrooms from grade levels pre-k - 6 and LLD and is designed to provide bilingual education for pupils who have limited Engish-speaking ability. That a majority of children in this district speak Spanish as the dominant home language has been established by questionnaires completed by parents in previous years. The objectives for children in the program are these: (1) to prevent their educational retardation by instructing them in Spanish while their command of English is being developed; (2) to enhance their understanding and cognitive development in both languages; (3) to give them the advantage of becoming literate in both languages; (4) to instill in them knowledge of and pride in their bicultural heritage.

The project is managed by the coordinator. Other administrative personnel are the curriculum specialist, the instructional tutor, and the part-time evaluator. The project embodies several components: (1) development of and revision of curriculum materials for bilingual classes, (2) bilingual instruction in grades pre-k - 6 and LLD, (3) staff development of bilingual teachers, aides, student interns and prospective teachers, and (4) parental and community involvement.

The student interns come under the third component and constitute an innovative and a significant element in this project. These ten student interns of junior or senior rank

from Our Lady of the Lake College are preparing to be bilingual teachers and carry a full course load at the College as well as working fifteen hours a week as teacher aides in bilingual classrooms. They receive a stipend to cover tuition and are paid at an hourly rate for their work in the classroom. The teachers for whom they are aides have indicated that they make conscientious, capable, and especially good aides because of their college background and career interest.

There are fifty-one classrooms of grade levels pre-k - 5 located in seven of the fifteen elementary schools of the district and five sections of sixth grade located in one of the district's four junior high schools. There are also two classes of LLD located in elementary schools and several sections of LLD located in the junior high previously. (See Table I) The pre-kindergarten pilot classroom, sixth grade, and the language-learning disability classes are new additions to the program this year.

There are eight more classrooms of bilingual located in the other elementary schools, but these are financed and monitored by the state as part of its own plan for bilingual education and are not part of Title VII and thus will not be covered in this evaluation report. The title VII project has 1612 pupils.

Title VII contributes funds for only prekindergarten, kindergarten, grades 5 and 6 and LLD. All other grade levels are funded by the local district and the state. Since less than 32% of this program is funded by Title VII, this indicates strong support for the bilingual education concept on the part of the district and of the state. This is particularly significant when one considers the low financial resources of this district.

TABLE I

TEACHERS, SCHOOLS, AND SUMMARY OF PUPIL DATA

TEACHER	SCHOOL	GRADE	NUMBER OF PUPILS
Garcia	Adams	1	24
Gonzales	Adams	1	25
Garza	Adams	2	26
Fresnillo	Collier	K	23
Ramirez	Collier	K	26
Palomino	Collier	1	25
Cantu	Collier	1	26
Mendoza	Collier	2	26
Garza	Collier	3	32
Guajardo	Col.Heights	Pre-K	20
Minica	Col.Heights	K	25
Mitchell	Col.Heights	1	27
Garcia	Col.Heights	1	25
Burleson	Col.Heights	1	26
Cafford	Col.Heights	1	25
Aubey	Col.Heights	1	27
Wiatrick	Col.Heights	2	30
Campbell	Col.Heights	2	28
Reneau	Col.Heights	2	28
Belasco	Col.Heights	2	29
Duarte	Col.Heights	3	29
Pachecano	Col.Heights	3	30
Reyna	Col.Heights	4	27
Rodriguez	Col.Heights	5	30
Zavala	Col.Heights	5	31
Nicholson	Flanders	K	28
Flores	Flanders	1	28
Bovello	Flanders	1	29
Hernandez	Flanders	2	28
Fields	Flanders	3	26
Huncy	Flanders	4	32
Vallejo	Flanders	5	32
Keller	Gillette	LLD	38
Pennela	Rayburn	K	28
Herrington	Rayburn	1	20
Perez	Rayburn	2	21
Keegel	Rayburn	3	27
Patton	Rayburn	LLD	16

0008

TEACHER	SCHOOL	GRADE	NUMBER OF PUPILS
Baker	Stonewall	K	26
Saenz	Stonewall	K	26
Umburn	Stonewall	1	26
Reyna	Stonewall	1	26
Lozano	Stonewall	1	26
Ayala	Stonewall	2	25
Rodriguez	Stonewall	2	26
Harris	Stonewall	3	23
Mendez	Stonewall	3	24
Gloyd	Stonewall	4	23
McKinney	Stonewall	4	24
Gonzales	Stonewall	5	30
Tenayuca	Stonewall	5	28
Jones	Wright	1	33
Engel	Wright	2	26
Langford (5 Sections)	Leal	6	172
Santos	Leal	LLD	26
TOTALS:			
55 Teachers	9 Schools		161 Pupils

*Although grades 1-4 in the Title VII Bilingual Education Program are being evaluated, all other financing for these classrooms is being furnished by the local district rather than by Title VII this year.

Bilingual Education for Grades Pre-K - 6 and LLD

In accordance with federal guidelines evaluation will be confined to the instructional component, and other aspects of this program will not be discussed. Again in accordance with federal directives, standardized tests constitute a significant part of the evaluation this year.

T Testing in bilingual classrooms has proceeded on schedule. In September and again in March the Peabody Picture Vocabulary Test was administered to all project pupils in prekindergarten and kindergarten. Both a Spanish and an English version of the test (Form B of the Spanish and Form A of the English version in the fall and the converse in the spring) were administered to each pupil individually* by teacher aides in these classrooms after a thorough briefing on procedure. Following administration, tests were scored immediately, and feedback in terms of mental age was given teachers. As soon as possible the evaluator sends feedback on all test scores to project teachers in order to aid them in diagnosing pupil weaknesses and beginning corrective action. Then the scores for all evaluation instruments are put on cards and electronically processed.

Criteria were set up by which grade level means for several groups of bilinguals coud be derived: those pupils whose scores on the two language versions were no further than twelve months apart were considered balanced bilinguals, and means were derived on both languages for this group; those pupils whose scores differed twelve months or more on the two languages were considered dominant in one language, and means were derived only for the dominant language for these pupils. These means are shown in Table II. They present overwhelming evidence of the nature of the handicap children in this district suffer from upon entering school--a vital vocabulary/concept deficit.

*Individual testing is almost a necessity at these grade levels.

0010

TABLE II

PEABODY PICTURE VOCABULARY TESTS
FALL GRADE LEVEL MEANS

(These figures show mental age in months.)

KINDERGARTEN

English Dominant	Spanish Dominant	Balanced Bilingual English	Balanced Bilingual Spanish
48.75 (28)	41.27 (60)	32.90 (79)	34.33 (79)

PREKINDERGARTEN

English Dominant	Spanish Dominant	Balanced Bilingual English	Balanced Bilingual Spanish
29.67 (3)	35.00 (6)	26.88 (8)	27.63 (8)

Pupils who have less than 12 months difference in mental age between English and Spanish scores are considered balanced bilinguals, and both language scores are used. Pupils whose scores in English and Spanish differ as much as 12 months are considered dominant in one language, and only the score for the dominant language is used.

( ) = No. of pupils.

0011

Children considered to be balanced bilinguals are the most handicapped, being approximately 2 1/2 years behind the norm. Children who are dominant in one language are from 1 1/2 to 2 years behind. A t-test, run to determine whether or not differences in scores between children who were dominant in one language and children who were balanced bilinguals were significant, showed that the differences between these groups were significant at the .01 level of confidence for kindergarten.*

The significance of these findings is heightened by another factor: this large vocabulary/concept deficit has shown up each of the four years the Peabody has been used in this project. In light of the considerable research which has shown vocabulary/concept and oral language development to be the determining factor in reading achievement ability and thus a vital factor in all future academic endeavors, the importance of this finding cannot be overemphasized.

Various explanations could be brought forth as to why the balanced bilinguals are the most handicapped. The topic itself would offer a fruitful field for extended research. What concerns this project, however, is the obvious need for teachers to be made aware of all aspects of this situation and then to act to implement fargoing efforts to alleviate it.

Various measures have been taken in other years of the project. Teachers have been made cognizant of the problem and have been asked to make extensive efforts in the field of vocabulary/concept development.

*Prekindergarten numbers were too low for any such statistical study.

0012

Training sessions to illustrate methods of vocabulary/concept development have been held. Adequate concentration on this field is a must before reading readiness activities are begun. In addition, teachers have been apprised of the need for continued concentration on oral language development over the space of several school years. It has been stressed that this oral language development holds the key to reading achievement or lack of reading achievement. The evaluator strongly recommends that all of these measures be taken again next year, preferably early in the school year.

Interquartiles and medians were derived for both languages scores on the Peabody for fall and Spring. These are shown in Table III. The fall median in kindergarten could be expected to be approximately 66 and in prekindergarten, to be 54. Fall medians fell roughly three years behind the norm in each language on both grade levels. The anticipated increase of six months between fall and spring was exceeded greatly. In English it was three times as high as could normally be expected, and in Spanish it was several months higher.

The findings from the Peabody interquartiles are reflected by two other statistical studies as well. In kindergarten 77% and n pre-kindergarten 91% achieved the expected six-month gain in English between September and March; 64% and 83%, respectively, achieved this gain in Spanish (see table IV). The kindergarten mean increase in English was over fifteen months and in Spanish, almost twelve months.

For pre-kindergarten, the mean increase was more than fourteen months and more than ten months, respectively. These figures present impressive evidence as to the success of bilingual teachers on these grade levels in dealing with the educational needs of their bilingual pupils.

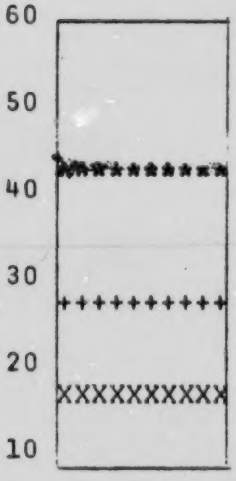
TABLE III

PEABODY PICTURE VOCABULARY TESTS*
INTERQUARTILES AND MEDIANS**

KINDERGARTEN

English Version

Pre-Test



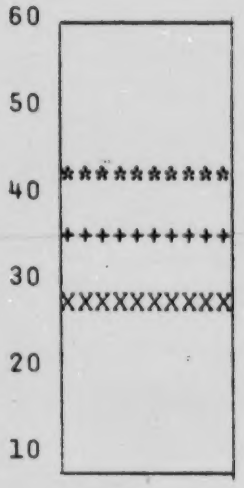
3rd Q: 42
Median: 29
1st Q: 16

Post-Test

3rd Q: 59
Median: 44
1st Q: 34

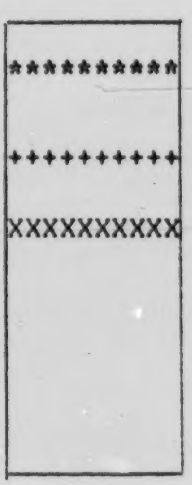
Spanish Version

Pre-Test



3rd Q: 41
Median: 35
1st Q: 28

Post-Test

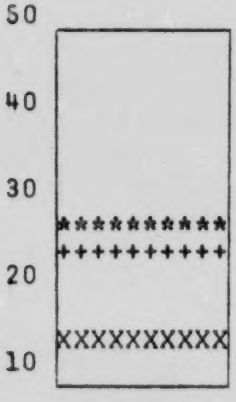


3rd Q: 55
Median: 43
1st Q: 36

PREKINDERGARTEN

English Version

Pre-Test



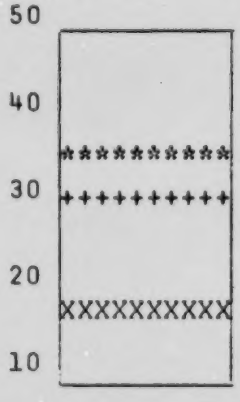
3rd Q: 26
Median: 22
1st Q: 11

Post-Test

3rd Q: 49
Median: 41
1st Q: 36

Spanish Version

Pre-Test



3rd Q: 33
Median: 29
1st Q: 16

Post-Test

3rd Q: 46
Median: 41
1st Q: 19

*Figures indicate mental age in months.

1st Quartile: XXXXX Median: +++++ 3rd Quartile: ***

TABLE IV

PEABODY PICTURE VOCABULARY TESTS

PERCENTAGE OF PUPILS ACCOMPLISHING 6 MONTH GAIN*

GRADE	TEACHER	SCHOOL	ENGLISH VERSION	SPANISH VERSION
K	Fresnillo	Collier	65	47
	Ramirez	Collier	84	89
	Minica	Col. Hghts	74	68
	Nicholson	Flanders	67	60
	Pennella	Rayburn	48	14
	Baker	Stonewall	100	78
	Saenz	Stonewall	100	95
	SUMMARY OF KINDERGARTEN		77	64
Pre-K	Guajardo	Col. Hghts.	91	83
	SUMMARY OF PRE-KINDERGARTEN		91	83

*Between September Pre-Test and March Post-Test.

0015

TABLE V

PEABODY PICTURE VOCABULARY TESTS

MEAN INCREASES*

GRADE	TEACHER	SCHOOL	ENGLISH MEAN INCREASE	SPANISH MEAN INCREASE
K	Fresnillo	Collier	11.1	3.8
	Ramirez	Collier	14.6	14.7
	Minica	Col. Hghts.	13.1	13.7
	Nicholson	Flanders	7.7	8.0
	Pennela	Rayburn	6.9	-1.2
	Baker	Stonewall	23.8	19.6
	Saenz	Stonewall	32.6	24.6
	K GRADE LEVEL MEAN INCREASE		15.7	11.8
Pre-K	Guajardo	Col. Hghts.	14.2	10.5
	Pre-K GRADE LEVEL MEAN INCREASE		14.2	10.5

*Figures show mental age in months. A six month gain between September and March would be expected.

0016

The Boehm Test of Basic Concepts was administered to their pupils by first and second grade teachers early in September and again late in February. Form B of the Spanish and Form A of the English were given in the fall; the converse, in the spring. This particular test has decided advantage for use with pupils in this project because interpretation of scores allows for differences in capability and performance due to socioeconomic background of pupils. There are three socioeconomic backgrounds specified, low, middle, or high. Separate national percentile tables derived for the three backgrounds can be used in interpreting pupils' raw scores. This method represents a more accurate way of judging a pupil's performance against his background, particularly since the pupil population of this target area comes from low socioeconomic backgrounds.

Clerical staff in the bilingual education office scored the Boehm tests and all other project tests except for the Peabody (scored by the aides) and the CTBS (scored by the company.) This clerical staff also converted scores for the Peabody and the Boehm tests. As soon as scoring had been completed, the evaluator delivered to teach rs a copy of the class record showing individuals pupil performance on each item in order that teachers could help the pupils to achieve mastery over these basic concepts necessary for successful academic work.

The Boehm test consists of fifty items, more than half of which are primarily syntactic items, in contrast to the Peabody which consists totally of semantic items, i.e. nouns, verbs, adjectives. Ninety percent of the concepts covered on the Boehm test fall into the categories of space, quantity or time.

In order to ascertain dominant language in the field of syntax for pupils entering first grade, fall raw scores were utiluzed in classifying pupils into one of three categories:- English-dominant, Sapnnish-dominant.

or balanced bilingual. The classification was based on overall standard deviations. The procedure was to assume that the difference between a pupil's English and Spanish scores followed a normal distribution with mean 0 and variance equaling the sum of the variances of the individual scores. Then each student was classified English-dominant if the difference between his two scores was greater than 1.96 times the standard error of the difference; Spanish-dominant, if greater than -1.96 times the standard error of the difference; and a balanced bilingual, otherwise.

The above study of Boehm scores revealed that in the area of syntax and basic concepts a great majority, 88% (188) of the pupils were balanced bilinguals, 9% (20) were English-dominant, and 3% (7) were Spanish-dominant. Means for balanced bilinguals and for those dominant in one language derived by the above method reinforce findings on the Peabody which show the balanced bilingual pupil entering school to be behind the pupil who is dominant in one language, as far as concept development goes. These means were 41.7 in English for the English-dominant pupil, 42.7 in Spanish for the Spanish-dominant, and 36.5 in English and 33.3 in Spanish for the balanced bilingual. Means differ by from five to nine concepts in favor of the one-language-dominant bilingual.

Since the majority of pupils are balanced bilinguals, it should be stated again that here in concept/vocabulary and oral language development is where the major effort needs to be directed for pupils in pre-K, kindergarten and first grade--and that this is imperative before beginning reading and math readiness activities. However, such an effort also needs to be sustained throughout several years, as language mastery is not gained in a few months or a year.

From the fall Boehm raw scores, separate means were derived for this year's first grade pupils who had been in bilingual kindergarten

classrooms and for those who had been in nonbilingual kindergarten classrooms last year as well as for those who had not been in kindergarten at all. This study was restricted to those first grade classrooms in schools where there were bilingual kindergartens last year, in order to assure common demographic characteristics of pupil population. These scores are shown in Table VI.

TABLE VI

A COMPARISON OF BILINGUAL VS. NONBILINGUAL KINDERGARTEN CONCEPT DEVELOPMENT: FALL BOEHM FIRST GRADE MEANS*
FOR PUPILS FROM LAST YEAR'S KINDERGARTEN
FOR PUPILS FROM LAST YEAR"

	NUMBER OF PUPILS	ENGLISH	SPANISH
Bilingual	78	35.55 53%-ile	34.58 48%-ile
Nonbilingual	31	35.39 51%-ile	29.13 25%-ile
Nonkindergarten	22	30.14 30%-ile	29.68 29%-ile

*Top figures are raw score means. Bottom figures are composite percentiles derived from raw score means.

0019

Those pupils who had been in the bilingual kindergarten scored five concepts higher in Spanish than both other groups and five concepts higher in English than those who had not attended kindergarten. This is evidence that the bilingual kindergarten program is one successful means of helping to overcome the concept deficit many of these children have upon entering school.

The project's objective on the Boehm test was for both first and second grade pupils to attain normal growth from pre-test at beginning of-year to post-test at mid-year. This normal growth is inferred through attainment of as high a percentile rank on post-test at mid-year as on pre-test at beginning-of-year. Most classrooms had very high percentages of pupils attaining this objective in one or both languages. Overall percentages for first grade were 58% in English and 51% in Spanish. Second grade percentages were 74% and 75%, respectively, (see Table VII.)

Mean increases in raw score were computed for the Boehm for both grade levels. Since one concept makes a great deal of difference in percentile at the upper reaches of scores and many concepts make little difference in percentile at the lower reaches of scores, it was felt that raw scores would be more meaningful than composite percentile increases in this particular situation. First grade made similar gains in English and Spanish scores, approximately five concepts. Second grade made better gains in Spanish than in English, 6.01 to 4.07 (See Table VIII.)

From percentile scores for the Boehm test the evaluator derived interquartiles and medians. First grade's median and lower quartile slipped slightly in both languages from pre-to post-test. However, all quartiles in second grade showed good gains from pre-to post-test. (See Tables IX and X.) Preservice or inservice training for first grade teachers next year should include discussion of this year's Boehm test results and methods for improved teaching of these basic concepts which are essential for successful undertaking of academic work.

TABLE VII

BOEHM TEST OF BASIC CONCEPTS
PERCENTAGE OF PUPILS ATTAINING OBJECTIVE*

TEACHER	SCHOOL	ENGLISH VERSION	SPANISH VERSION
FIRST GRADE			
Garcia	Adams	29	16
Gonzales	Adams	47	79
Palomino	Collier	48	48
Cantu	Collier	29	41
Flores	Flanders	29	81
Bovello	Flanders	92	14
Herrington	Rayburn	82	50
Umburn	Stonewall	77	30
Reyna	Stonewall	81	0
Lozano	Stonewall	84	65
Jones	Wright	52	85
GRADE LEVEL SUMMARY		58	51
SECOND GRADE			
Garza	Adams	40	53
Mendoza	Collier	92	57
Wiatrek	Columbia Heights	82	91
Campbell	Columbia Heights	78	91
Reneau	Columbia Heights	74	75
Belasco	Columbia Heights	71	96
Hernandez	Flanders	100	100
Perez	Rayburn	72	35
Ayala	Stonewall	79	73
Rodriguez	Stonewall	46	84
Engel	Wright	68	45
GRADE LEVEL SUMMARY		74	73

*Normal growth as reflected by attaning as high or a higher percentile on February post-test than on September pre-test

*The principal at Columbia Heights refused to allow this test to be given in Title VII first grades.

TABLE VIII

BOEHM TEST OF BASIC CONCEPTS
MEAN INCREASES IN RAW SCORE*

TEACHER	ENGLISH VERSION	SPANISH VERSION
FIRST GRADE		
García	2.7	3.4
Gonzales	4.1	10.5
Palomino	3.9	3.6
Cantú	3.6	7.0
Flores	-0.3	6.8
Bovello	8.9	3.5
Herrington	5.2	1.5
Umburn	6.4	3.7
Reyna	9.6	0.0
Lozano	10.2	3.6
Jones	0.8	7.8
Summary of Grade 1	5.0	5.3
SECOND GRADE		
Garza	2.86	2.86
Mendoza	6.26	3.93
Wiatrek	5.82	9.59
Campbell	6.27	7.91
Reneau	4.04	6.04
Belasco	2.65	9.86
Hernandez	4.88	8.35
Perez	3.59	0.36
Ayala	4.06	5.94
Rodriguez	2.38	5.98
Engel	2.77	2.86
Summary of Grade 2	4.07	6.01

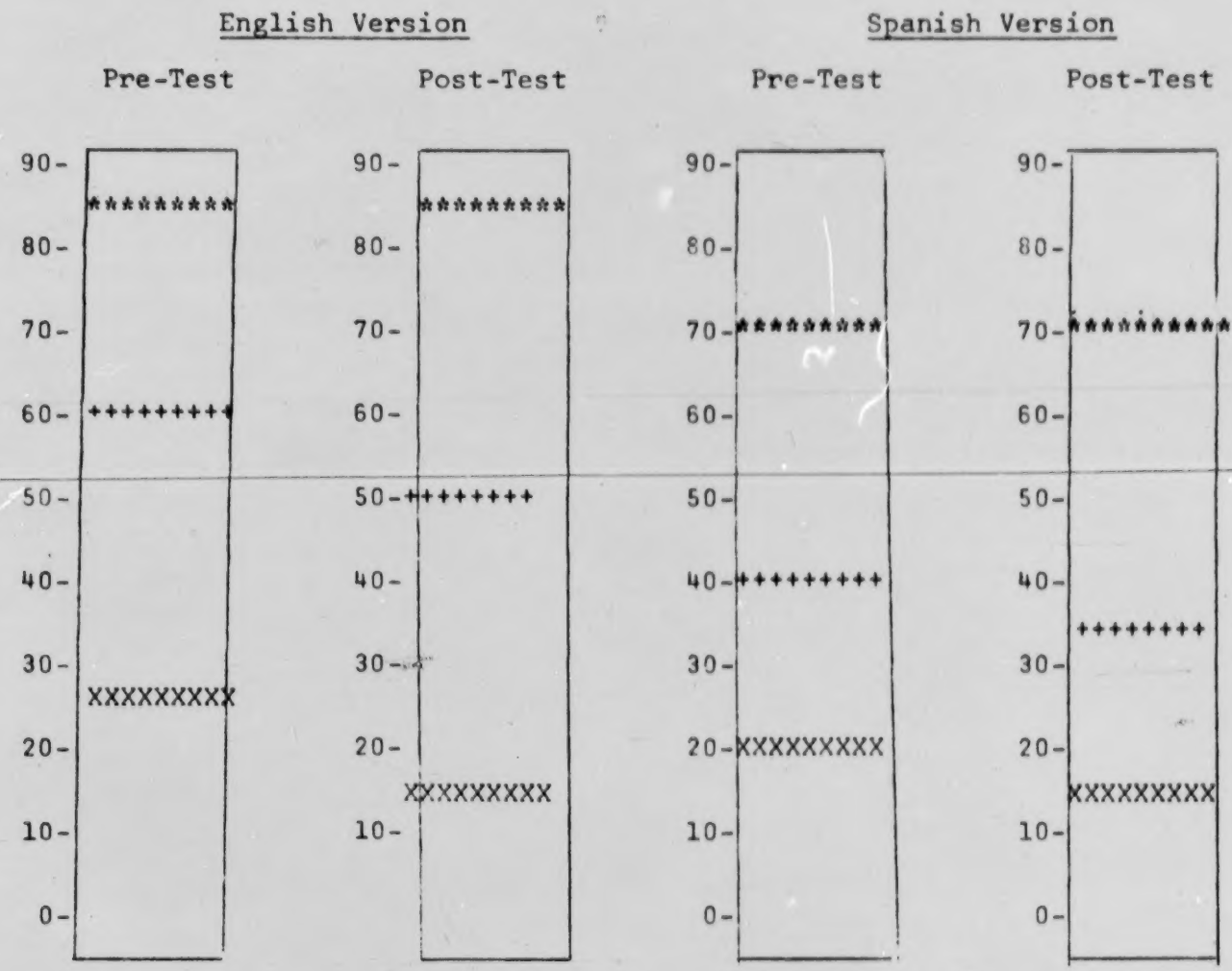
*From pre-test in September to post-test in February

* The principal at Columbia Heights refused to allow this test to be given in Title VII first grades there.

0022

TABLE IX

BOEHM TEST OF BASIC CONCEPTS FIRST GRADE*
Inter artiles and Medians**



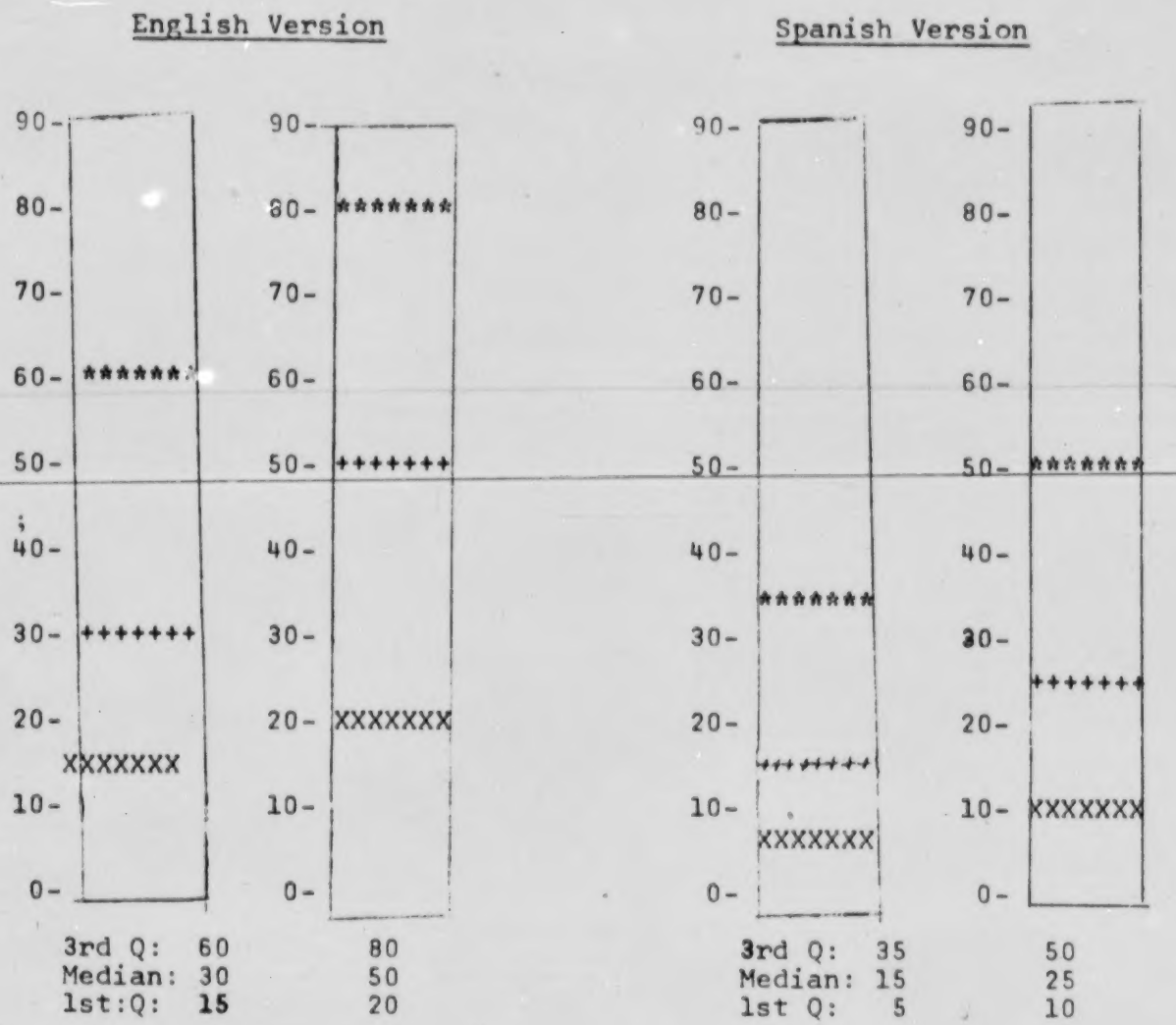
	English Version		Spanish Version	
	Pre-Test	Post-Test	Pre-Test	Post-Test
3rd Q:	85	85	70	70
Median:	60	50	40	35
1st Q:	25	15	20	15

*Figures indicate national percentile.
1st Quartile: XXXXX Median: +++++ 3rd Quartile: ***

0023

TABLE X

BOEHM TEST OF BASIC CONCEPTS SECOND GRADE*
Interquartiles and Medians**



* Figures indicate national percentile.
** 1st Quartile: XXXXX Median: +++++ 3rd Quartile: *****

The School Readiness Survey was given by kindergarten teachers in April. The survey consists of 96 items covering reading and math readiness and vocabulary. A score of 80 or more indicates the child is ready for school; 70-79 indicates borderline readiness; and below 70 indicates the child needs to develop before being ready for school. Of the kindergarten classrooms all but one showed a majority of pupils having at least borderline readiness for school. Of all kindergartners 45% showed complete readiness, and 23% showed borderline readiness for school. This is better than two-thirds of these pupils, reflecting a praiseworthy accomplishment by these teachers. (See Table XI)

The Comprehensive Test of Basic Skills was given by teachers to pupils in grades 3-6 early in September and in grades 1-6 late in February: Level A for first grade, Level B for second, Level C for third, Level I for fourth and Level II for fifth and sixth. The objective for first grades (who had no pre-test) was to reach the 50th percentile in language, reading and math. This would necessitate raw scores of 18 for language, 132 for pre-reading and 21 for math. Percentages of first graders accomplishing this objective were these: 34% in language, 23% in reading, and 38% in math. (See Table XII.) Normally, 50% would achieve this goal. Raw score means were computed and composite percentiles extrapolated from these figures. (These as well as scale score means are also found in Table XII.) All percentiles are porr, with reading being the lowest.

The objective for second graders (who also took no pre-test) was to reach the 2.5 grade equivalent in all areas of the test (See Table XIII.) Far less than the expected 50% achieved this in any area. 16% in reading, 6% in language, and 28% in math.

TABLE XI

SCHOOL READINESS SURVEY--KINDERGARTEN
PERCENTAGE OF PUPILS ATTAINING OBJECTIVE*

TEACHER	COMPLETE READINESS	BORDERLINE READINESS
Fresnillo	38%	43%
Ramirez	64%	36%
Minica	16%	38%
Nicholson	0%	0%
Pennella	96%	4%
Baker	65%	27%
Saenz	43%	19%
SUMMARY FOR THIS GRADE	45%	23%

*Readiness for beginning school work

0026

TABLE XII

COMPREHENSIVE TEST OF BASIC SKILLS--FIRST GRADE
PERCENTAGE OF PUPILS ATTAINING 50th PERCENTILE AND
RAW SCORE AND SCALE SCORE MEANS

TEACHER	READING	LANGUAGE	MATH
Gonzales	32	44	60
Garcia	29	43	33
Cantu	8	12	16
Palomino	5	17	13
Aubey	9	9	18
Burleson	19	19	31
Gafford	10	14	19
Mitchell	8	24	48
Garcia	12	8	28
Bovello	42	46	35
Flores	25	41	41
Herrington	44	83	61
Lozano	36	48	52
Reyna	35	35	42
Umburn	24	44	58
Jones	32	54	41
SUMMARY FOR THIS GRADE	23	34	38
GRADE LEVEL MEAN RAW SCORES	113.9	14.7	18.2
NATIONAL NORM MEAN RAW SCORES	132.0	18.0	21.0
GRADE LEVEL MEAN SCALE SCORES	192	228	220
NATONAL NORM SCALE SCORE	236	249	237
NATIONAL PERCENTILE COMPOSITE (EXTRAPOLATED FROM RAW SCORE MEANS)	11	34	29

TABLE XIII

COMPREHENSIVE TEST OF BASIC SKILLS--SECOND GRADE
PERCENTAGE OF PUPILS ATTAINING 2.5 GRADE EQUIVALENT

TEACHER	READING	LANGUAGE	MATH
Garza	11	4	14
Mendoza	4	0	16
Wiatrick	4	0	17
Campbell	15	0	64
Belasco	8	4	13
Reneau	0	0	4
Hernandez	43	25	54
Perez	12	17	42
Ayala	26	0	32
Rodr-guez, M.	19	15	23
Engel	31	9	36
SUMMARY FOR THIS GRADE	16	6	28

00128

The objective for grades 3-6 on the CTBS was a six-month grade-equivalent increase in each area from pre- to post-test. For the total battery, the percentage of third graders attaining this objective was 55% with the larger percentages being in the areas of language arts and math, 59%. (See Table XIV.) The percentage for fourth graders on the total battery was 66% with all areas being similarly good. (Table XV.) Of fifth grades 50% attained a six-month increase on the battery, but only 41% of sixth graders achieved this. (See Table XVI and XVII.) In grades 4-6 study skills, which included both reference and graphic skills, were added to the test battery. In general for grades 3-6, better than half of the pupils attained the objective with the exception of sixth grade.

Examination of interquartiles and medians for second grade on the CTBS reveals that (1) the median is approximately seven months behind national norms in all areas, (2) the upper quartile is approximately four months ahead of the median, and (3) the lower quartile varies from two months to more than a year behind the median, the latter being in language. (See Table XVIII.)

Examination of third grade interquartiles and medians reveals less than normal growth everywhere, except for the upper quartile.(See Table XIX.) Medians for this grade run almost a year behind the national norms. Fourth grade, on the contrary, shows far better than normal growth, varying from eight months to a year's growth, in a six months space of time. Medians run only five months behind national norms. (See Table XX.)

Examination of fifth grade interquartiles reveals normal growth in language and math but little growth in reading. The median is two years for reading, one and a half years behind in language and a year behind the national norm in grade equivalent.

TABLE XIV

COMPREHENSIVE TEST OF BASIC SKILLS--THIRD GRADE

PERCENTAGE OF PUPILS ATTAINING SIX MONTHS GAIN IN GRADE EQUIVALENT

TEACHER	READING	LANGUAGE	MATH	TOTAL BATTERY
Mendoza	19	43	40	35
Duarte	52	55	62	53
Pachecano	18	39	42	36
Fields	57	95	82	91
Koegel	7	64	71	31
Harris	41	67	50	45
Mendez	52	52	67	76
SUMMARY FOR THIS GRADE	37	59	59	55

TABLE XV

COMPREHENSIVE TEST OF BASIC SKILLS--FOURTH GRADE
PERCENTAGE OF PUPILS ATTAINING SIX MONTHS GAIN IN GRADE EQUIVALENT

TEACHER	READING	LANGUAGE	MATH	TOTAL BATTERY	STUDY SKILLS
Reyna	43	36	48	33	48
Muncy	42	67	52	62	65
Gloyd	67	48	47	74	47
McKinney	100	81	50	95	86
GRADE LEVEL SUMMARY	63	58	49	66	62

00031

TABLE XVI

COMPREHENSIVE TEST OF BASIC SKILLS--FIFTH GRADE
PERCENTAGE OF PUPILS ATTAINING SIX MONTHS GAIN IN GRADE EQUIVALENT

TEACHER	READING	LANGUAGE	MATH	TOTAL BATTERY	STUDY SKILLS
Rodriguez	61	60	39	45	33
Zavala	40	54	61	45	68
Vallejo	38	54	37	50	42
Gonzales	35	74	67	68	26
Tenayuca	53	42	29	37	47
Grade Level Summary	45	58	47	50	44

0032

TABLE XVII

COMPREHENSIVE TEST OF BASIC SKILLS--SIXTH GRADE
PERCENTAGE OF PUPILS ATTAINING SIX MONTHS GAIN IN GRADE EQUIVALENT

TEACHER: Langford

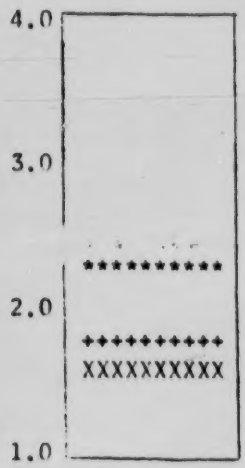
SECTION	READING	LANGUAGE	MATH	TOTAL BATTERY	STUDY SKILLS
One	54	70	50	56	50
Two	52	52	13	24	52
Three	54	50	42	30	56
Four	28	71	46	55	47
Five	30	29	44	31	42
GRADE LEVEL SUMMARY	44	57	40	41	49

00033

TABLE XVIII

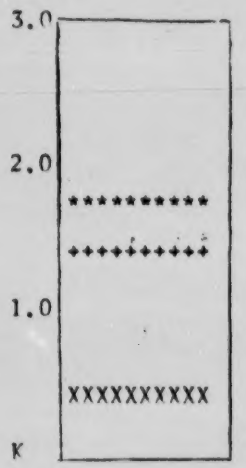
COMPREHENSIVE TEST OF BASIC SKILLS--SECOND GRADE
INTERQUARTILES BASED ON GRADE EQUIVALENT*

READING



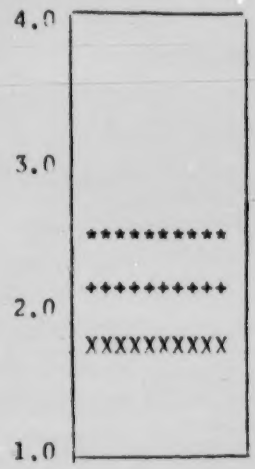
3rd Q: 2.2
Median: 1.8
1st Q: 1.6

LANGUAGE



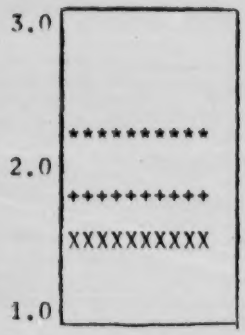
3rd Q: 1.8
Median: 1.4
1st Q: K.3

MATH



3rd Q: 2.6
Median: 2.1
1st Q: 1.7

TOTAL BATTERY



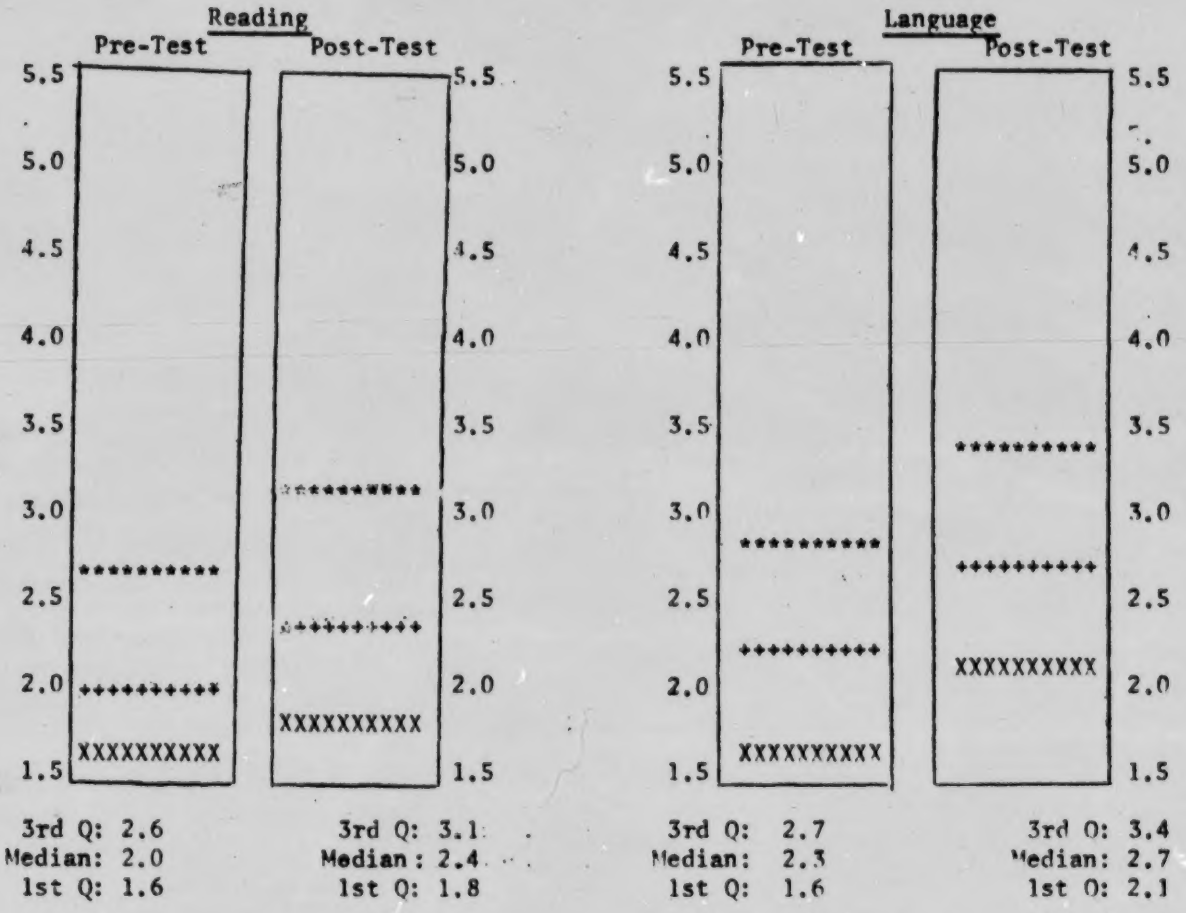
3rd Q: 2.1
Median: 1.8
1st Q: 1.6

*1st Quartile: XXXXX Median: +++++ 3rd Quartile: *****

0034

TABLE XIX

COMPREHENSIVE TEST OF BASIC SKILLS -- THIRD GRADE
INTERQUARTILES BASED ON GRADE EQUIVALENT*



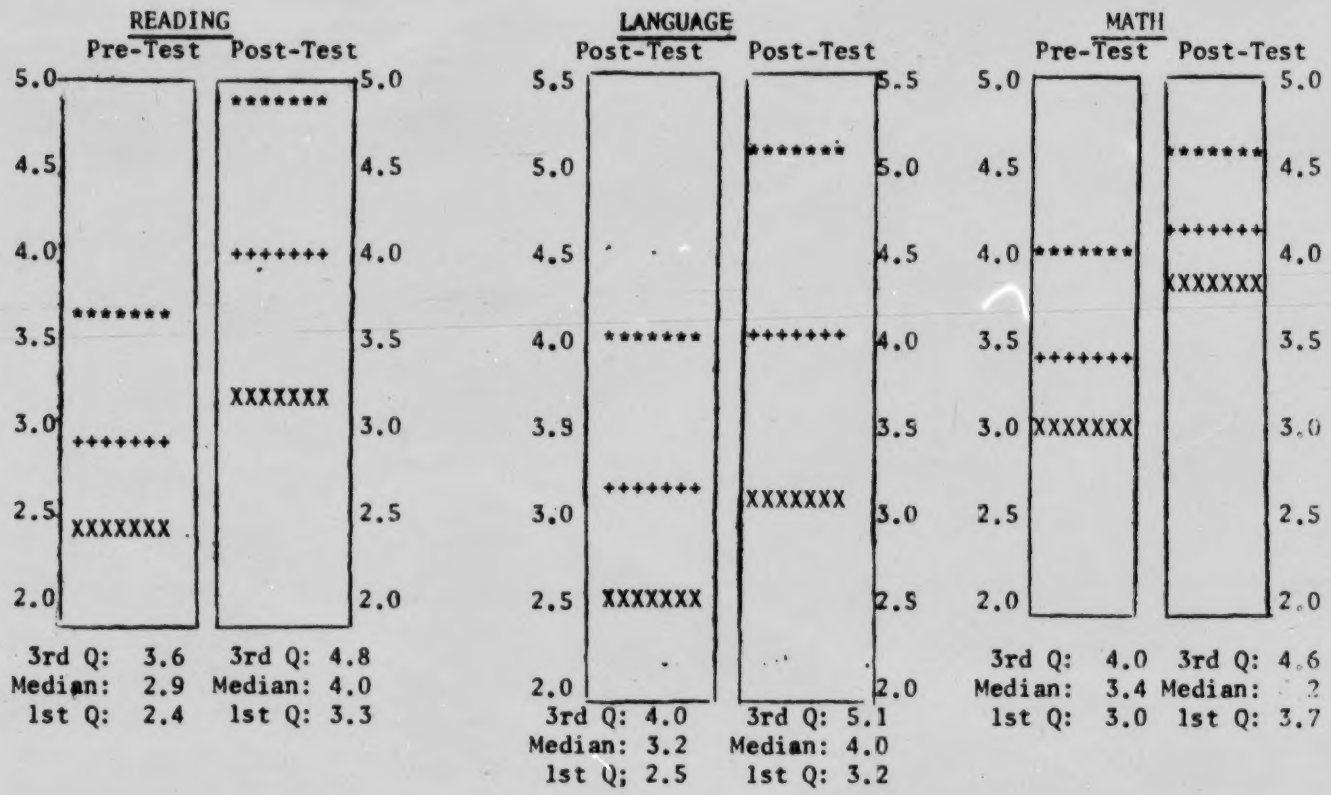
	Pre-Test	Post-Test
Reading	3rd Q: 2.6 Median: 2.0 1st Q: 1.6	3rd Q: 3.1 Median: 2.4 1st Q: 1.8
Language	3rd Q: 2.7 Median: 2.3 1st Q: 1.6	3rd Q: 3.4 Median: 2.7 1st Q: 2.1
Math	3rd Q: 2.8 Median: 2.2 1st Q: 1.9	3rd Q: 3.4 Median: 2.9 1st Q: 2.3
Total Battery	3rd Q: 2.7 Median: 2.3 1st Q: 1.7	3rd Q: 3.4 Median: 2.6 1st Q: 2.0

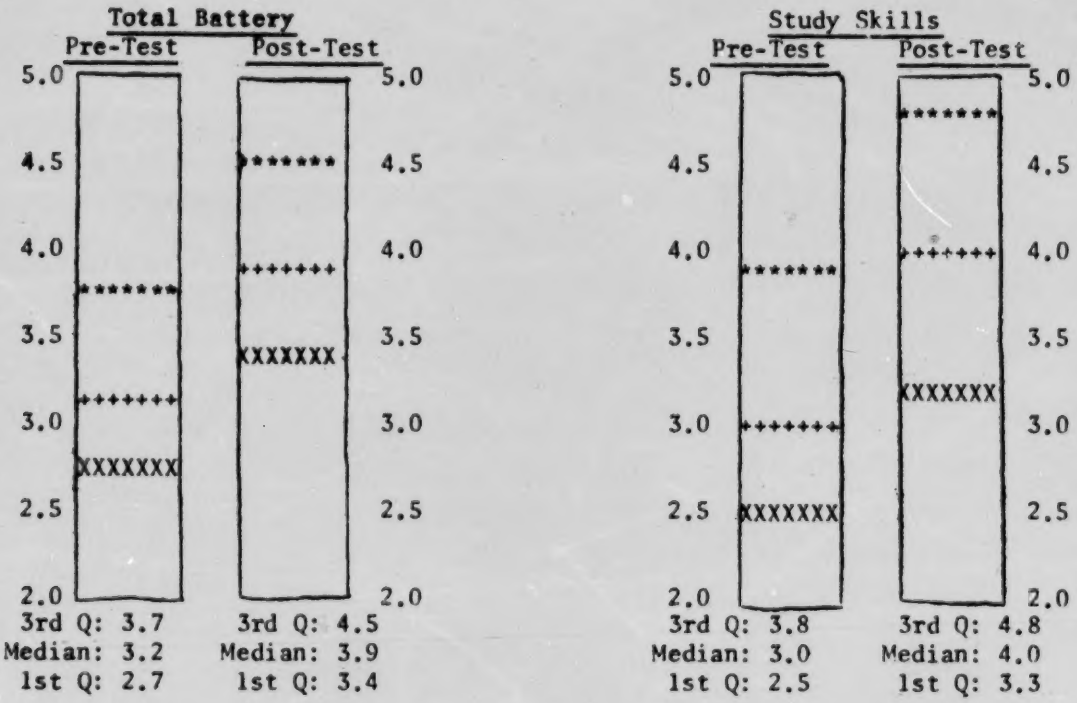
*1st Quartile: XXXXX Median: ++++++ 1st Quartile: *****

0035

TABLE XX

COMPREHENSIVE TEST OF BASIC SKILLS - FOURTH GRADE
INTERQUARTILES BASED ON GRADE EQUIVALENT*





*1st Quartile: XXXXX Median: +++++ 3rd Quartile: ******

0036

Math Sixth grade gains in interquartiles are a little better than normal. The spring medians run a year behind national norms, however. (See Table XXI and XXII)

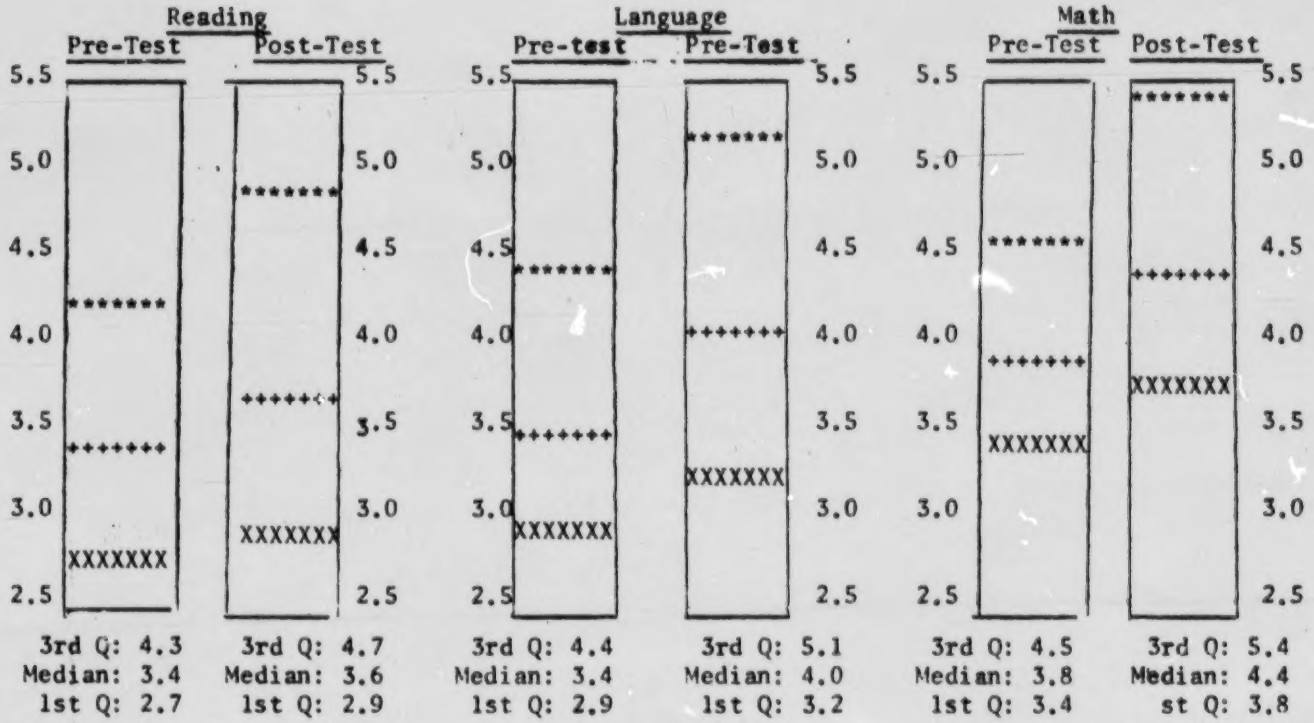
For all grade levels close analysis of scores from the CTBS reveals that there are definite skills from each area which produce better performance than the other skills from that area and that the particular skill so doing is the same for all grade levels. The better skills are these: vocabulary in reading, spelling and mechanics in language, and computation in math. Comprehension in reading, expression in language, and concepts and application in math produce poorer showings. Therefore the latter areas are those requiring more concentrated attention from teachers in the future.

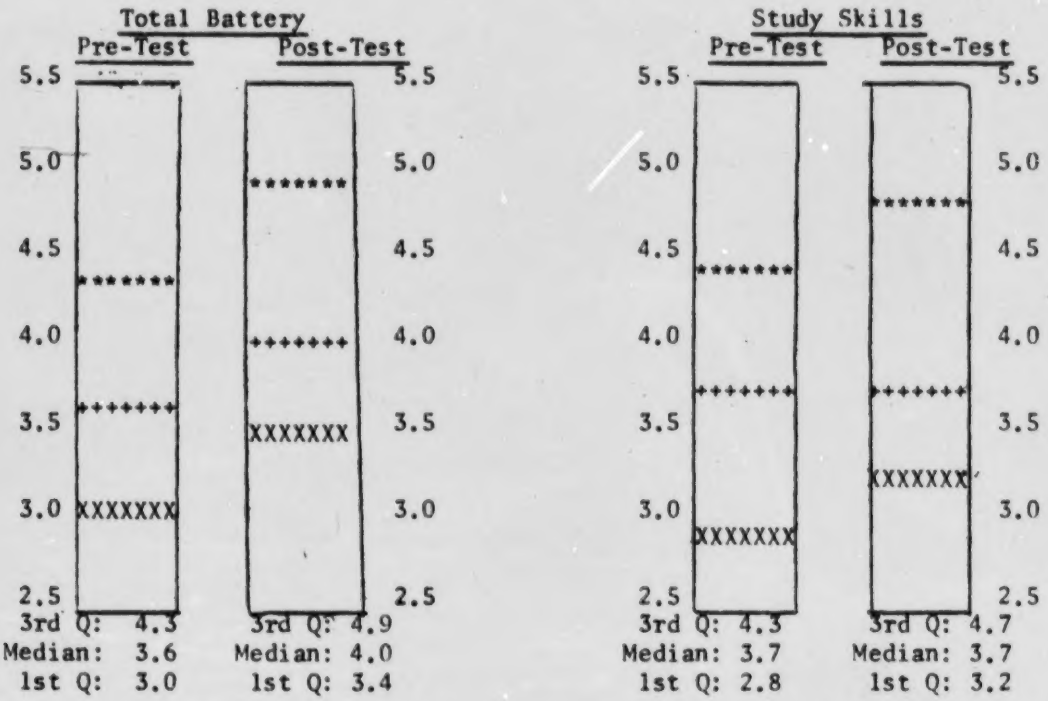
It has been recommended to the director that a segment of the preservice training be set aside for discussion of findings from this year's evaluation, pinpointing of problem areas, and study of methods and techniques to improve instruction for pupils in these areas. The evaluator has been assured that time will be allotted for this activity. Materials provided to teachers at that time will include the following: McGraw-Hill's teachers guide to the CTBS tests, handouts showing the various skills covered in each section of the tests, sample computer printout class record forms and test materials. A consultant from McGraw-Hill will lead teachers in small grade group sessions (1 and 2, 3 and 4,5 and 6) in study of and discussion of techniques of instruction leading to pupil mastery of various skill areas.

The Prueba de Lectura (Spanish reading test) was given in September and again in March in grades 3-6 by project teachers. Having found in the past that the levels of the test were unsuitable for the grades specified

TABLE XXI

COMPREHENSIVE TEST OF BASIC SKILLS - FIFTH GRADE
INTERQUARTILES BASED ON GRADE EQUIVALENT*



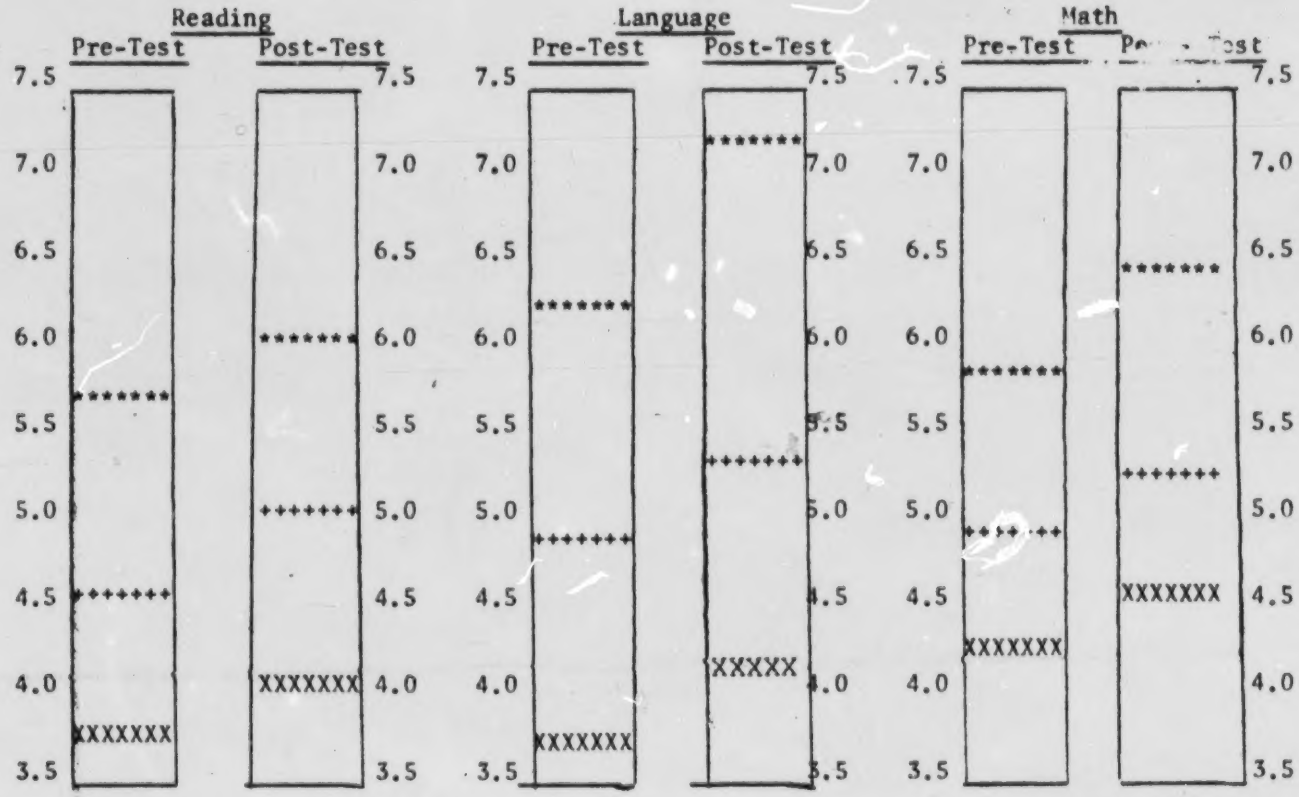


*1st Quartile: XXXXX Median: ++++++ 3rd Quartile: *****

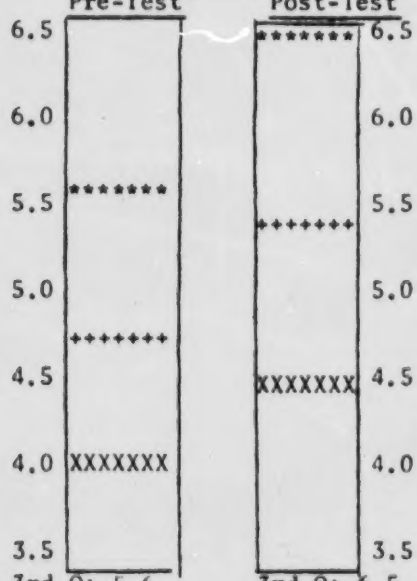
0038

TABLE XXII

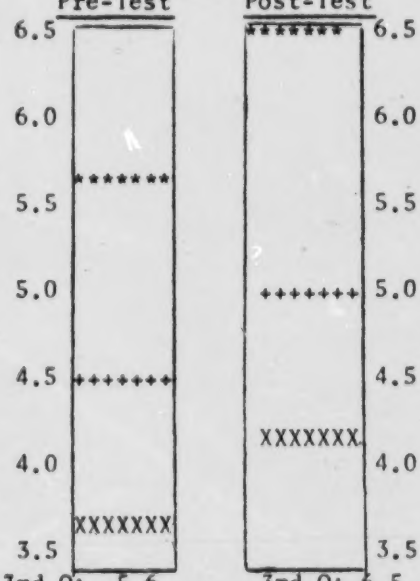
COMPREHENSIVE TEST OF BASIC SKILLS - SIXTH GRADE
INTERQUARTILES BASED ON GRADE EQUIVALENT*



Reading		Language		Math	
Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
3rd Q: 5.6	3rd Q: 6.0	3rd Q: 6.2	3rd Q: 7.2	3rd Q: 5.8	3rd Q: 6.4
Median: 4.5	Median: 5.0	Median: 4.8	Median: 5.3	Median: 4.9	Median: 5.2
1st Q: 3.7	1st Q: 4.0	1st Q: 3.6	1st Q: 4.2	1st Q: 4.2	1st Q: 4.5



Total Battery	
Pre-Test	Post-Test
3rd Q: 5.6	3rd Q: 6.5
Median: 4.7	Median: 5.4
1st Q: 4.0	1st Q: 4.5



Study Skills	
Pre-Test	Post-Test
3rd Q: 5.6	3rd Q: 6.5
Median: 4.5	Median: 5.0
1st Q: 3.6	1st Q: 4.1

*1st Quartile: XXXXX Median: +++++ 3rd Quartile: *****

00039

by the developer who has as yet not normed the test, it was decided to administer Level I for third and fourth grades and Level II for fifth and sixth. Data for this test is given in raw scores. The total possible score for Level I is 80 and for Level II, 110.

The objective was an increase in score from pre-to post-test. More than four-fifths of the pupils fulfilled this objective. (See Table XXIII) Means and standard deviations were computed for each grade level (see Table XXIV) as were mean increases in test scores (See Table XXV.) The mean increases per grade level were 12.4 for third, 5.4 for fourth, 16.8 for fifth, and 19.0 for sixth. A t-test run to ascertain if increases in test scores were statistically significant determined that these increases were significant to the .001 level of confidence on every grade level. This is substantial accomplishment in the area of Spanish reading.

A local Bilingual Education Program Test in Social Studies and Science(a copy is included in the appendix of this report) was given by project teachers in grades 2-6 in September and in grades 1-6 in March. This was done for two reasons: (1) certain levels of the CTBS had no social studies or science portions; (2) this project wished to evaluate specific bilingual education goals and objectives for its pupils in these areas. There are both Spanish and English versions of the test. The Spanish version is given to half the classrooms on each grade level; the English, to the other half. This is done for comparative purposes.

The test had been developed for grade levels 1-3 in 1971, and validity and reliability for these grade levels had been established in 1972. The test was then used with these grade levels in 1972-73. In 1973-74 a fourth grade level for the test and in 1974-75 fifth and sixth grade levels for the test were developed and used. Validity for these levels

TABLE XXIII

PRUEBA DE LECTURA
PERCENTAGE OF PUPILS ATTAINING OBJECTIVE*

Grade	Teacher	Percentage
3	Mendoza	91
3	Duarte	82
3	Pachecano	91
3	Koegel	25
3	Fields	95
3	Harris	89
3	Mendez	100
SUMMARY FOR THIS GRADE		83
4	Reyna	57
4	Muncy	76
4	Gloyd	91
4	McKinney	75
SUMMARY FOR THIS GRADE		74
5	Rodriguez	100
5	Zavala	73
5	Vallejo	86
5	Gonzales	100
5	Tenayuca	76
SUMMARY FOR THIS GRADE		87
6,1	Langford	97
6,2	Langford	89
6,3	Langford	90
6,4	Langford	93
6,5	Langford	85
SUMMARY FOR THIS GRADE		91

*Again between pre-test in September and post-test in March

0041

TABLE XXIV

PRUEBA DE LECTURA
MEANS AND STANDARD DEVIATIONS

Grade		Mean	Standard Deviation	Number Of Pupils Tested
3	Pre-Test	42.6	16.3	177
	Post-Test	54.6	17.9	172
4	Pre-Test	57.8	13.4	105
	Post-Test	62.6	14.9	103
5	Pre-Test	47.7	20.8	145
	Post-Test	62.7	24.6	150
6	Pre-Test	55.4	23.1	163
	Post-Test	74.5	24.9	164

TABLE XXV

PRUEBA DE LECTURA
MEAN INCREASES*

Grade	Teacher	Increase
3	Garza	20.4
3	Duarte	9.3
3	Pachecano	10.0
3	Fields	23.5
3	Koegel	-9.1
3	Harris	12.3
3	Mendez	18.5
SUMMARY FOR THIS GRADE		12.4
4	Reyna	2.1
4	Muncy	7.0
4	Gloyd	6.9
4	McKinney	5.5
SUMMARY FOR THIS GRADE		5.4
5	Rodriguez	38.6
5	Zavala	6.7
5	Vallejo	10.1
5	Gonzales	16.9
5	Tenayuca	7.0
SUMMARY FOR THIS GRADE		15.8
6,1	Langford	22.0
6,2	Langford	19.4
6,3	Langford	16.3
6,4	Langford	17.5
6,5	Langford	20.0
SUMMARY FOR THIS GRADE		19.0

*Over a six-month interval.

0043

was established by an expert in tests and measures.* This year for these levels of the test a split-half reliability test was run by this expert.* The coefficient of correlation which resulted was not high enough to support reliability confidence, probably due to the length of the test. Every level of the test consists of only ten questions in each subject matter area.

Therefore, although results for the test will be reported this year, the reliability factor should be born in mind. Also, next year, this test will be eliminated. The new CTBS Form S has social studies and science portions on its tests from second grade upward. Form S containing these portions will be used next year. In addition, teachers will report to the evaluator results on tests given at the end of each social studies and science unit taught. These units, the majority written in Spanish, each with a test at the end, have been and still are being created to fulfill specific needs of this bilingual project.

*Dr. Lowell Bynum, Education Dept., Southwest Texas State University.

The objective for first graders, who took no pre-test, was correct completion of 70% of the test. This was accomplished by about 70% of the pupils in social studies and over 90%, in science. The objective for grades 2-6 was an increase in score between pre - and post-test. Approximately two-thirds of the pupils on each grade level achieved the objective. (See Table XXVI) Half the time performance was better in English; the other half, it was better in Spanish. This seems an indication that project teachers are teaching these two subject matter areas in both languages, as stipulated in the proposal.

Project teachers at all grade levels administered a self-concept instrument in the fall and again in the spring. The self-concept instrument used this year was just developed in the summer of 1974. It is entitled the Proejected Self-Concept Inventory. It was originated as a result of two educators* becoming dissatisfied with various deficiencies of existing self-concept instruments and their wanting to construct an improved instrument for this area. The inventory consists of a series of twenty pictures. The teacher reads a statement, and the pupil picks one from a set of two pictures which he thinks most accurately reflects the statement. The twenty pictures and statements deal with some aspect or other of the pupil's academic life. Since each set of pictures consists of one picture conveying a Positive self-image and one conveying a negative self-image, the highest possible positive score is 20, and the lowest possible score is 0.

*Dr. Coleen Conoley and Dr. Helene Harrison

TABLE XXVI

BEP TEST IN SOCIAL STUDIES AND SCIENCE
PERCENTAGE OF PUPILS ATTAINING OBJECTIVE*

GRADE	VERSION	TEACHER	SOCIAL STUDIES	SCIENCE
1	Spanish	Garcia	59	86
1	English	Gonzales	96	88
1	English	Palomino	57	91
1	Spanish	Cantu	23	92
1	Spanish	Garcia	37	87
1	English	Mitchell	67	96
1	English	Gafford	41	64
1	Spanish	Burleson	54	96
1	English	Aubey	43	100
1	English	Bovello	86	97
1	Spanish	Flores	79	97
1	Spanish	Herrington	95	89
1	English	Umburn	100	100
1	Spanish	Lozano	88	96
1	English	Reyna	65	96
1	Spanish	Jones	93	97
SUMMARY FOR THIS GRADE	English		66	92
	Spanish		71	93
2	English	Garza,F.	26	42
2	English	Mendoza	29	48
2	Spanish	Wiatrick	80	75
2	Spanish	Campbell	74	65
2	English	Reneau	71	59
2	English	Belasco	39	83
2	Spanish	Hernandez	57	68

*60% correct for first grade test in March; a gain from September pre-test to March post-test for grades 2-6

0046

TABLE XXVI CONTINUED

GRADE	VERSION	TEACHER	SOCIAL STUDIES	SCIENCE
2	English	Perez	37	60
2	Spanish	Ayala	36	59
2	English	Rodriguez,M.	25	54
2	Spanish	Engel	35	45
SUMMARY FOR THIS GRADE	ENGLISH		37	58
	SPANISH		57	63
3	Spanish	Mendoza	67	81
3	Spanish	Duarte	57	65
3	English	Pachecano	77	50
3	Spanish	Koegel	50	32
3	English	Fields	70	39
3	English	Harris	90	86
3	Spanish	Mendez	45	91
SUMMARY FOR THIS GRADE	English		79	58
	Spanish		55	67
4	Spanish	Reyna	54	54
4	English	Muncy	43	70
4	Spanish	Gloyd	95	95
4	English	McKinney	64	77
SUMMARY FOR THIS GRADE	English		53	73
	Spanish		73	73
5	English	Rodriguez	64	50
5	Spanish	Zavala	64	52
5	English	Gonzales	86	97
5	Spanish	Vallejo	77	42
5	Spanish	Tenayuca	46	50
SUMMARY FOR THIS GRADE	English		76	76
	Spanish		62	48

0047

TABLE XXVI CONTINUED

GRADE	VERSION	TEACHER	SOCIAL STUDIES	SCIENCE
6-1	English	Langford	83	90
6-2	Spanish	Langford	55	73
6-3	English	Langford	79	76
6-4	Spanish	Langford	63	70
6-5	Spanish	Langford	100	63
SUMMARY FOR THIS GRADE	English		81	83
	Spanish		73	68

This project and the Bilingual Education Program of San Marcos Independent School District in San Marcos were allowed free use of the inventory in return for help in fieldtesting it. All data gathered from the inventory will be utilized this summer for validity and reliability studies as well as for item analysis. A revised and improved inventory based on these studies will be used next year.

The objective of an increase in score from fall to spring administration of the inventory was fulfilled by approximately 60% of the pupils in the project. (See Table XXVII.) Means and standard deviations were derived from raw scores (see Table XVIII.) Then mean increases from pre-to post-test for each grade level were derived (see Table X and a t-test was run to determine if these increases were statistically significant.* They were significant at the .05 level of confidence for grades k-6. Since past self-concept research indicates a tendency for the self-concept of minority and lower socioeconomic group pupils to decrease during the academic year and to decrease even more each year as pupils progress upward in grade level, this data reflects an impressive contribution of bilingual education and of the teachers to these pupils in the affective area.

The Wide Range Achievement Test was one of the instruments used last spring in the screening process by which children were placed into LLD (Language Learning Disability) classes. The WRAT is administered individually. Scores from last spring's screening process were used as pre-tests.

*This procedure was not applied to pre-kindergarten and LLD because the low numbers of pupils in these groups make this kind of statistical study not feasible.

TABLE XXVII

PROJECTED SELF-CONCEPT INVENTORY
PERCENTAGE OF PUPILS MAKING GAIN*

GRADE	PERCENTAGE
Pre-K	59
K	70
1	50
2	50
3	52
4	70
5	60
6	48
LLD, Elementary	48
LLD, Middle School	62

TABLE XXVIII

PROJECTED SELF-CONCEPT INVENTORY
MEANS AND STANDARD DEVIATIONS*

	PRE-TEST			POST-TEST		
GRADE	MEAN	STANDARD DEVIATION	NUMBER OF PUPILS TESTED	MEAN	STANDARD DEVIATION	NUMBER OF PUPILS TESTED
K	13.48	3.70	163	15.7	3.8	174
1	12.58	4.01	361	13.1	4.3	341
2	12.42	3.98	262	13.0	4.1	280
3	12.36	3.73	174	13.3	4.0	172
4	12.11	2.95	96	14.6	3.6	98
5	11.90	3.64	141	13.8	4.1	149
6	11.39	3.49	1.52	11.7	4.3	147

*Figures represent raw scores

0051

TABLE XXIX

PROJECTED SELF-CONCEPT INVENTORY
MEAN INCREASES IN RAW SCORE*

GRADE	INCREASE
K	2.2
1	0.7
2	0.7
3	1.0
4	2.0
5	0.6
6	0.6

*From pre-test in October to post-test in April

0052

The test was administered again in April as a post-test in Title VII Project LLD classrooms. The objective of a normal increase in grade equivalent scores from pre- to post-test would require a one-year increase. In the elementary LLD 50% attained the objective in reading; 50%, in spelling; and 50% in Math. In the middle school LLD 32% attained the objective in reading; 0%, in spelling; and 46% in Math. Mean increase in grade equivalent for the elementary was one year in reading, seven months in spelling, and one year in math. For the middle school, it was seven months, four months, and eight months, respectively. (See Table XXX.)

In May teachers sent feedback to the evaluator on psychomotor skills their pupils have acquired this school year. Pupils in this project have not only acquired skills in the psychomotor area but have increased their cognitive knowledge of their cultural heritage and have learned to value it more highly this year because their teachers have introduced them to Mexican games, songs, and dances. Of the entire project, more than one-third have performed these games, songs and dances for parents and the public this year. (See Table XXXI) Since parents have either made costumes or seen that pupils had pants and blouses or shirts to match those of others in their group for performances, this represents proof of involvement and interest in school events on the part of the parents of children in this project. This involvement will lead to increased opportunity for Mexican-American children to succeed in their educational preparation for life.

TABLE XXX

WIDE RANGE ACHIEVEMENT TEST--LLD CLASSES
PERCENTAGE OF PUPILS MAKING NORMAL GAIN*

LEVEL	READING	SPELLING	MATH
Elementary	50%	50%	50%
Middle School	32%	0%	46%

GRADE EQUIVALENT MEAN INCREASE

Elementary	1 Year	7 Months	1 Year
Middle School	7 Months	4 Months	8 Months

*One year's grade equivalent increase from pre-test in Spring of 1974 to post-test in spring of 1975.

00154

TABLE XXXI

PSYCHOMOTOR SKILLS LEARNED AND DEMONSTRATED:
MEXICAN GAMES, SONGS AND DANCES

GRADE LEVEL	PERCENTAGE OF PUPILS LEARNING*	PERCENTAGE OF PUPILS PERFORMING ON PROGRAMS
Pre-K	100	100
K	85	68
1	99	40
2	100	36
3	86	20
4	100	92
5	61	4
6	45	15
LLD	65	0
SUMMARY FOR ALL GRADE LEVELS	85	36

* Occasional pupils were not in the room at the time of these activities because this time was spent with the resource teacher, the speech therapist, etc.

0055

APPENDIX

BEP TEST IN SOCIAL STUDIES AND SCIENCE

0056

PUPIL_____ TEACHER_____

GRADE_____ SCHOOL_____ TOTAL CORRECT: Social Studies_____
Science _____

SOCIAL STUDIES (FIRST GRADE)

1) American flag

2) Mexican flag

3) Who brings the letters? ☐ milkman ☐ policeman ☐ mailman

4) In the school room we find ☐ bus ☐ crayons ☐ trees

5) In the morning we say ☐ Good night ☐ Good day ☐ Good morning

6) Farm animal

7) Christmas

8) Texas

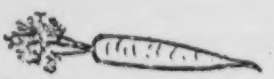
9) Winter

10) Zoo animals

TOTAL CORRECT _____

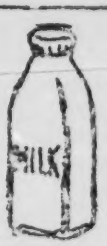
HEALTH / SCIENCE / SAFETY (FIRST GRADE)

1) Vegetable



2) Fruit

3) Milk



4) This helps us to stay clean

5) Cold

6) Earth

7) It can fly

8) Living things

9) In the water we find

10) When the traffic light is red, it means to —

☐ go ☐ stop ☐ wait

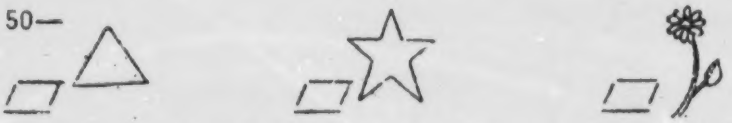
TOTAL CORRECT _____

ALUMNO _____ MAESTRO _____

GRADO _____ ESCUELA _____ TOTAL DE ACIERTOS: Estudios Sociales _____
Ciencias Naturales _____

ESTUDIOS SOCIALES (SEGUNDO GRADO)

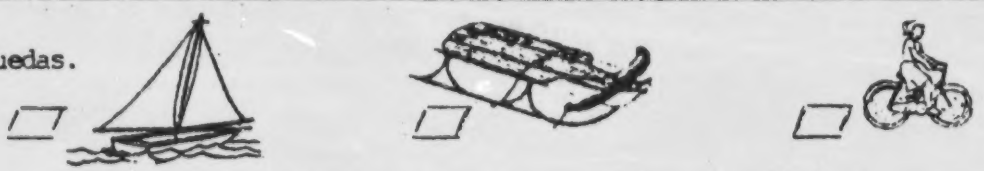
1) En la bandera americana se ven 50—



2) El día de dar gracias--

3) Hechas de maíz.

4) Esto tiene ruedas.

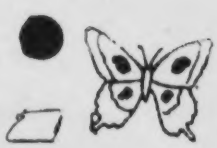


5) El mayor de la familia.

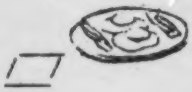
6) Se encuentra en árbol.

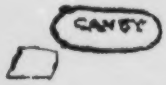
7) El granero.

8) Animal del circo.



9) Un buen almuerzo.



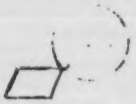


10) Encontramos libres en

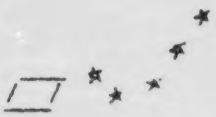
TOTAL DE ACIERTOS _____

CIENCIAS NATURALES (SEGUNDO GRADO)

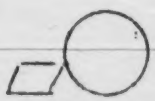
1) La luna llena.

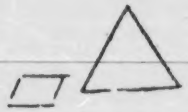


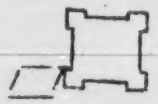
2) Ursa menor.



3) Forma del mundo.







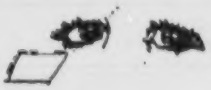
4) Esta nos da leche.

5) Las matas necesitan esto.

6) Es la estación de o[illegible]

7) Jack está enfermo. [illegible] necesita un --

8) Masticamos con esto.



9) El modo correcto de pasear en bicicleta.

10) Antes de comer nos lavamos las---

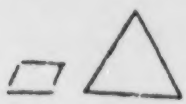
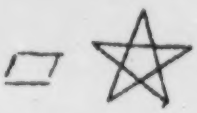
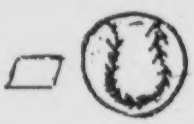
TOTAL DE ACIERTOS_____

PUPIL _____ TEACHER _____

GRADE _____ SCHOOL _____ TOTAL CORRECT: Social Studies _____
Science _____

SOCIAL STUDIES (SECOND GRADE)

1) On the American Flag we see 50 ---

2) Thanksgiving

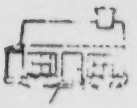
3) Made of corn

4) It has wheels

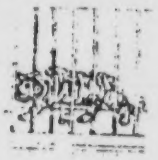
5) Oldest in the family

6) On a tree

7) The barn



8) Circus anima.



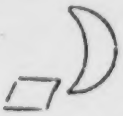
9) A good breakfast

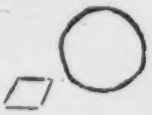
10) We find books in

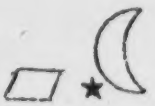
TOTAL CORRECT _____

HEALTH / SCIENCE / SAFETY (SECOND GRADE)

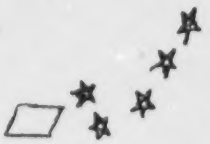
1) This is a full moon.



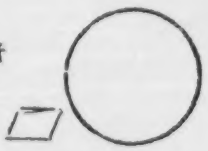


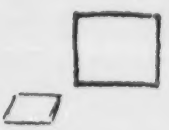


2) This is the little dipper.



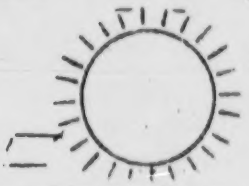
3) This is the shape of the earth.





4) This gives us milk.

5) Plants need



6) It is the fall season.

7) Jack is sick. He needs a ---

8) We chew with this—

9) The right way to ride a scooter.

10) Before we eat, we wash our—

TOTAL CORRECT _____

TEACHER _____

GRADE____ SCHOOL_____ TOTAL CORRECT: Social Studies____
Science _____

SOCIAL STUDIES (THIRD GRADE)

1) In the United States, there are how many states?

☐ 30 ☐ 50 ☐ 45

2) The capitol of Mexico is --

☐ Washington, D.C. ☐ Austin ☐ Mexico City

3) Earth is a --

☐ moon ☐ star ☐ planet

4) The first man to step on the moon was --

☐ Michael Collins ☐ Neil Armstrong ☐ Edwin Aldrin

5) The capitol of Texas is --

☐ San Antonio ☐ Dallas ☐ Austin

6) The first Mexican was --

☐ Indian ☐ Spanish ☐ French

7) When the Eskimos gave something they had for something they wanted, they were --

☐ buying ☐ trading ☐ taking

8) The Pilgrims came to America to find --

☐ food ☐ happiness ☐ homes

9) Eskimos wear boots called --

☐ caps ☐ shoes ☐ mukluks

10) Most regions of the earth have seasons because the earth is --

☐ round ☐ tilted ☐ static

TOTAL CORRECT _____

HEALTH / SCIENCE / SAFETY (THIRD GRADE)

1) _____ move the body.

/__/ Muscles /__/ Skin /__/ Hair

2) The _____ moves blood through the body.

/__/ heart /__/ brain /__/ lung

3) A bicycle should be ridden in the _____.

/__/ house /__/ sidewalk /__/ school room

4) To keep from getting a cavity we should _____.

/__/ comb our hair /__/ brush our teeth /__/ take a bath

5) An animal that lives on land and water is a _____.

/__/ spider /__/ frog /__/ cove

6) The stem, root, and leaf are parts of a _____.

/__/ plant /__/ animal /__/ building

7) One of the 5 senses is _____.

/__/ smell /__/ seeds /__/ elk

8) Oxygen is a _____.

/__/ gas /__/ solid /__/ liquid

9) The cactus is found in the _____.

/__/ desert /__/ water /__/ Arctic

10) A shark lives in the _____.

/__/ ocean /__/ desert /__/ mountains

TOTAL CORRECT _____

ALUMNO _____ MAESTRO _____

GRADO ____ ESCUELA _____ TOTAL DE ACIERTOS: Estudios Sociales _____
Ciencias Naturales _____

ESTUDIOS SOCIALES (TERCER GRADO)

1) En los Estados Unidos, ¿ cuántos estados hay?

☐ 30 ☐ 50 ☐ 45

2) La capital de Méjico es --

☐ Washington, D.C. ☐ Austin ☐ Méjico, D.F.

3) La tierra es

☐ luna ☐ estrella ☐ planeta

4) El primer hombre que anduvo en la luna fué

☐ Michael Collins ☐ Neil Armstrong ☐ Edwin Aldrin

5) La capital de Tejas es

☐ San Antonio ☐ Dallas ☐ Austin

6) El primer mejicano era

☐ indio ☐ español ☐ francés

7) Cuando los esquimales daban algo que tenían por algo que querían, estaban

☐ comprando ☐ traficando ☐ cogiendo

8) Los peregrinos vinieron a América para adquirir

☐ comida ☐ alegría ☐ hogares

9) Los esquimales llevan botas que se llaman

☐ mocasines ☐ zapatos ☐ mukluks

10) Muchas regiones de la tierra tienen estaciones porque la tierra es

☐ redondada ☐ inclinada ☐ estática

TOTAL DE ACIERTOS _____

CIENCIAS/SALUBRIDAD/SEGURIDAD (TERCER GRADO)

1) _____ mueven el cuerpo.

☐ Los músculos ☐ La piel ☐ El pelo

2) _____ mueve la sangre por el cuerpo.

☐ El corazón ☐ El seso ☐ el pulmón

3) Una bicicleta se debe manejar en la _____.

☐ casa ☐ banqueta ☐ sala de clase

4) Para tener buenos dientes debe _____.

☐ peinarse ☐ cepillarse los dientes ☐ bañarse

5) Un animal que vive en tierra y agua es una _____.

☐ araña ☐ rana ☐ paloma

6) El tronco, la raíz, y la hoja son partes de _____.

☐ la planta ☐ un animal ☐ un edificio

7) Uno de los cinco sentidos es _____.

☐ olar ☐ semilla ☐ anta

8) Oxígeno es _____.

☐ gas ☐ sólido ☐ líquido

9) El nopal se encuentra en _____.

☐ el desierto ☐ el agua ☐ el ártico

10) El tiburón vive en _____.

☐ el océano ☐ el desierto ☐ la montaña

TOTAL DE ACIERTOS _____

PUPIL _____ TEACHER _____

_____ _____ TOTAL CORRECT: Social Studies _____
Science _____

SOCIAL STUDIES (FOURTH GRADE)

1) The border between Texas and Mexico is formed by —

☐ mountains ☐ the Rio Grande River ☐ The Gulf of Mexico

2) The Texas motto is —

☐ friendship ☐ peace ☐ love

3) The Texas state flower is the

☐ daisy ☐ blue bonnet ☐ rose

4) During its history, Texas has been under —

☐ three flags ☐ one flag ☐ six flags

5) The important seaports in Texas are found on the —

☐ Gulf of Mexico ☐ Rio Grande River ☐ Atlantic Ocean

6) The founders of Tenochtitlán (now called Mexico City) were one of the last tribes to arrive in Mexico. They were the —

☐ Tejas Indians ☐ Maya Indians ☐ Aztec Indians

7) The date Mexico's independence from Spain is celebrated is

☐ September 16 ☐ July 4 ☐ November 11

8) The Aztec chieftain remembered today is

☐ Hernán Cortés ☐ Moctezuma ☐ Benito Juárez

9) A well-known Mexican-American golfer is —

☐ Lee Treviño ☐ Henry B. Gonzales ☐ Anthony Quinn

10) A well-known Mexican-American tennis player is

☐ Joe Kapp ☐ Trini López ☐ Pancho Gonzales

0070 TOTAL CORRECT = _____

HEALTH/SCIENCE/SAFETY (FOURTH GRADE)

1) Scientists who study the earth are called

☐ biologists ☐ astronomers ☐ geologists

2) The mineral treasure of Texas is

☐ copper ☐ oil ☐ silver

3) The Rio Grande Valley is famous for growing

☐ wheat ☐ sugar cane ☐ citrus fruits

4) This Texas city is found at sea level.

☐ El Paso ☐ Austin ☐ Corpus Christi

5) Mineral products found in Mexico are

☐ wheat and sugar cane ☐ lemons and oranges ☐ copper and gold

6) The Sierra Madre Mountains of Mexico have more deposits of ____ than any other country in the world.

☐ silver ☐ platinum ☐ salt

7) The Aztec Indians invented a

☐ printing press ☐ calendar ☐ water wheel

8) The Pyramid of the Sun which is higher than those of Egypt was constructed by

☐ the Tejas Indians ☐ the Aztec Indians ☐ the Maya Indians

9) The center of our solar system is the

☐ moon ☐ Earth ☐ sun

10) The planet closest to the sun is

☐ Venus ☐ Mercury ☐ Earth

TOTAL CORRECT= _____

ALUMNO _____ MAESTRO _____

GRADO _____ ESCUELA _____ TOTAL DE ACIERTOS: Estudios Sociales ____
Ciencias Naturales ____

ESTUDIOS SOCIALES (CUARTO GRADO)

1) La frontera entre Tejas y Méjico está formada por --

☐ montañas ☐ el Río Grande ☐ El Golfo de Méjico

2) El lema de Tejas es —

☐ amistad ☐ paz ☐ amor

3) La flor del estado de Tejas es --

☐ la margarita ☐ el bonete azul ☐ la rosa

4) Durante su historia, Tejas estuvo bajo--

☐ tres banderas ☐ una bandera ☐ seis banderas

5) Los puertos marinos de Tejas se encuentran en

☐ el Golfo de Méjico ☐ el Río Grande ☐ el Océano Atlántico

6) Los que construyeron Tenochtitlán(que hoy se llama Ciudad de Méjico) fueron una de las últimas tribus que llegaron a Mejico. Fueron --

☐ los indios tejas ☐ los indios mayas ☐ los indios aztecas

7) La fecha de la independencia mejicana es --

☐ el deiciséis de septiembre ☐ el cuatro de julio ☐ el once de noviembre

8) El jefe azteca que se recuerda hoy es

☐ Hernán Cortés ☐ Moctezuma ☐ Benito Juárez

9) Un jugador mexicano-americano muy conocido de golf es --

☐ Lee Treviño ☐ Henry B. Gonzales ☐ Anthony Quinn

10) Un jugador mexicano-americano muy conocido de tennis es --

☐ Jee Kapp ☐ Trini López ☐ Pancho Gonzales

TOTAL DE ACIERTOS = _____

0072

1) Científicos que estudi[redacted] la tierra se llaman [redacted]

☐ biólogos ☐ astronomos ☐ geólogos

2) El tesoro minero de Tejas es

☐ cobre ☐ petróleo ☐ plata

3) El Valle del Río Grande es famoso por su

☐ trigo ☐ azúcar ☐ frutas cítricas

4) Esta ciudad de Tejas se encuentra al nivel del mar.

☐ El Paso ☐ Austin ☐ Corpus Christi

5) Productos mineros que se encuentran en Méjico son

☐ trigo y caña de azucar ☐ limones y naranjas ☐ cobre y oro

6) La Sierra Madre tiene los depósitos de ___ más grandes de todo el mundo.

☐ plata ☐ platino ☐ sal

7) Los aztecas inventaron

☐ una prensa para imprimir ☐ un calendario ☐ una noria (pozo de agua)

8) La Pirámide del Sol que es más alta que las pirámides de Egipto fué construída por

☐ los tejas ☐ los aztecas ☐ los mayas

9) El centro de nuestro sistema solar es

☐ la luna ☐ la Tierra ☐ el sol

10) El planeta que está más cercano al sol es

☐ Venus ☐ Mercurio ☐ la Tierra

TOTAL DE ACIERTOS = _____

PUPIL_____ TEACHER_____

GRADE_____ SCHOOL_____ TOTAL CORRECT: SOCIAL STUDIES_____
SCIENCE_____

CIENCIA (QUINTO GRADO)

1) Para salir de la atmósfera de la Tierra, un cohete espacial necesita la velocidad de

☐ 1,000 millas por hora ☐ 5,000 millas por hora ☐ 25,000 millas por hora

2) Una velocidad muy alta se alcanza rápidamente cuando se usa

☐ cohetes de una etapa ☐ una carga útil ☐ cohetes de multiples etapas

3) La fuerza que detiene objetos en la Tierra es

☐ la gravedad ☐ aceleración ☐ órbita

4) Poner en órbita quiere decir

☐ regresar a la atmósfera de la Tierra ☐ dar vuelta alrededor de un objeto ☐ deshacerse

5) La parte del cohete que continua en el espacio es

☐ la carga útil ☐ la segunda etapa ☐ la primer etapa

6) En el espacio no hay

☐ atmósfera ☐ fuerza ☐ velocidad

7) En el espacio, el astronauta está

☐ pesado ☐ cansado ☐ sin peso

8) La condición del cuerpo del astronauta se reporta a la Tierra por

☐ instrumentos en el traje espacial ☐ teléfono ☐ televisión

9) Para que la cápsula vaya más despacio al regresar

☐ se abre una paracaída ☐ se usa un escudo de color ☐ el astronauta retarda el motor

10) Todos los vuelos espaciales americanos se recobran

☐ en la tierra ☐ en el aire ☐ en el agua

(1074)

ESTUDIOS SOCIALES (QUINTO GRADO)

1) El padre de la independencia Mexicana fué

☐ Hernán Cortés ☐ Miguel Hidalgo ☐ Benito Juárez

2) Un gran presidente de Mexico fué

☐ Hernán Cortés ☐ Miguel Hidalgo ☐ Benito Juárez

3) Benito Juárez ayudó a los indios de

☐ los Estados Unidos ☐ México ☐ España

4) Cuántos estados tiene México?

☐ 49 ☐ 25 ☐ 29

5) Dos ciudades de Texas son

☐ Houston
San Antonio ☐ Los Angeles
San Francisco ☐ New York City
Chicago

6) Un Texano que se hizo presidente de los Estados Unidos fué

☐ John F. Kennedy ☐ Lyndon B. Johnson ☐ Richard M. Nixon

7) Es cantante internacional que canta "It Must Be Him"

☐ Roberta Flack ☐ Vikki Carr ☐ Lola Beltrán

8) Fué nacído y educado en San Antonio. Primero se hizo maestro, luego Senador, y ahora es miembro del Congreso del los Estados Unidos. Es

☐ José San Martín ☐ Joe Bernal ☐ Henry B. González

9) El primer Mexicano-Americano de los Estados Unidos que ha tenido la posición del Obispo de la iglesia católica

☐ Patrick Flores ☐ José López ☐ Jesús González

10) Un Negro-Americano distinguido que predicó contra la violencia y que fué asesinado fué

☐ Louis Armstrong ☐ Martin Luther King ☐ Bill Cosby

PUPIL _____ TEACHER _____

GRADE _____ SCHOOL _____ TOTAL CORRECT: SOCIAL STUDIES _____
SCIENCE _____

SCIENCE (FIFTH GRADE)

1) In order to leave Earth's atmosphere, a rocket must have a velocity of

☐ 1,000 miles per hour ☐ 5,000 miles per hour ☐ 25,000 miles per hour

2) A high velocity is reached quickly by using

☐ one stage rockets ☐ a payload ☐ multistage rockets

3) The force that keeps objects on earth is

☐ gravity ☐ acceleration ☐ orbit

4) To orbit means

☐ to return to the Earth's atmosphere ☐ to revolve around an object ☐ to desintegrate

5) The part of the rocket that goes into space is the

☐ Payload ☐ second stage ☐ first stage

6) In space, thereis no

☐ Atmosphere ☐ force ☐ speed

7) Once he is in space, the astronaut is

☐ heavy ☐ tired ☐ weightless

8) The condition of the astronaut's body is reported to Earth through

/ / instruments in the space suit ☐ telephone ☐ television

9) To slow the capsule on its return

☐ a parachute is opened ☐ a heat shield is used ☐ the astronaut slows the engine

10) All American space flights are recovered

☐ on land ☐ in the air ☐ in water

SOCIAL STUDIES (Fifth Grade)

1. The Father of Mexican Independence was -

☐ Hernán Cortez ☐ Miguel Hidalgo ☐ Benito Juárez

2. A great president of Mexico was -

☐ Hernán Cortéz ☐ Miguel Hidalgo ☐ Benito Juárez

3. Benito Juárez helped the Indians of -

☐ United States ☐ Mexico ☐ Spain

4. Mexico contains how many states?

☐ 49 ☐ 25 ☐ 29

5. Two cities of Texas are

☐ Houston
San Antonio ☐ Los Angeles
San Francisco ☐ New York City
Chicago

6. A native Texan who was United States President was -

☐ John F. Kennedy ☐ Lyndon B. Johnson ☐ Richard M. Nixon

7. She is an international singer who sings "It Must Be Him".

☐ Roberta Flack ☐ Vikki Carr ☐ Lola Beltrán

8. He was born and educated in San Antonio, Texas. He was first a school teacher, then a Senator and now a Congressman. He is -

☐ José San Martín ☐ Joe Bernal ☐ Henry B. González

9. He is the first Mexican-American in United States to hold the position of Bishop.

☐ Patrick Flores ☐ Jose López ☐ Jesús Gonzales

10. An outstanding Black American who preached non-violence and who was assassinated -

☐ Louis Armstrong ☐ Martin Luther King ☐ BiliCosby

PUPIL _____ TEACHER _____

GRADE _____ SCHOOL _____ TOTAL CORRECT : Social Studies _____
Science _____

SOCIAL STUDIES (SIXTH GRADE)

1) The Mexican-American is unique because --

☐ he has two cultures ☐ he shares in Mexican and United States history ☐ he explored and colonized the New World

2) Portions of these states were not originally part of Mexico.

☐ Texas, New Mexico, Arizona ☐ Colorado, Nevada, California ☐ Louisiana, Arkansas Mississippi

3) They were responsible for thousands of people moving to California in 1849.

☐ cowboys ☐ miners ☐ farmers

4) El Camino Real which was the main means of transportation from Mexico northward followed the —

☐ Rio Grande ☐ Colorado River ☐ Red River

5) Water laws and community property laws in the Southwest came from --

☐ Mexico ☐ the eastern United States ☐ England

6) Early homes of the Southwest were made of --

☐ wood ☐ concrete blocks ☐ adobe

7) Early Indians of Arizona who built a great civilization and then disappeared were the --

☐ Hohokam ☐ Zunis ☐ Navajo

8) The presidios were necessary in colonization because --

☐ they were social meeting places ☐ they provided protection from the Indians ☐ they were religious cneters

9) This animal was a necessity for the pioneers.

☐ pig ☐ cat ☐ mule

PUPIL_____ TEACHER_____

GRADE_____ SCHOOL_____ TOTAL CORRECT: SOCIAL STUDIES_____
Science_____

SOCIAL STUDIES (SIXTH GRADE)

10) He was shipwrecked off the eastern coast of Texas, was the first European to cross the Southwest and wrote a "Memory" which is still important today.

☐ Cabeza de Vaca ☐ Coronado ☐ Hernán Cortéz

PUPIL_____ TEACHER_____

GRADE_____ SCHOOL_____ TOTAL CORRECT: Social Studies_____
Science_____

SCIENCE (SIXTH GRADE)

1) The cattle which were prized in the old Southwest because they need little water are--

☐ Charolais ☐ Hereford ☐ Longhorn

2) A hybrid animal used to carry burdens in the old Southwest was the

☐ mule ☐ burro ☐ horse

3) A simple way of removing mineral from ore is by--

☐ washing (placering) ☐ heating ☐ mixing with salt

4) Miners would figure out what type of mineral they had found by--

☐ crushing it ☐ heating it ☐ washing it

5) Ecology comes from the Greek work oikos meaning

☐ house or home ☐ life ☐ plants and animals

6) Gold deposits are found in--

☐ marble ☐ slate ☐ quartz

7) The step-by-step series of eating and being eaten is called

☐ a web of life ☐ a biome ☐ a food chain

8) The way all living things affect each other is called

☐ the food chain ☐ the web of life ☐ ecology

9) The plant which stores water is--

☐ hemp ☐ tobacco ☐ cactus

10) In the semi-arid land of the Southwest_____is necessary.

☐ oceanography ☐ irrigation ☐ pollution

TOTAL CORRECT=_____

0080

PUPIL_____ TEACHER_____

GRADE_____ SCHOOL_____ TOTAL CORRECT: SOCIAL STUDIES_____
SCIENCE_____

ESTUDIOS SOCIALES (SEXTO GRADO)

1) El Mexico-Americano es original porque

☐ tiene dos culturas ☐ participa en historia Mexicana y Americana ☐ exploró y colonizó el Nuevo Mundo

2) Partes de estos estados originalmente no eran parte de Mexico

☐ Arizona ☐ California ☐ Mississippi

3) Ellos eran responsables de que miles de personas llegaran a California en 1849

☐ vaqueros ☐ mineros ☐ granjeros

4) El Camino Real que era el modo principal de transportación de Mexico hacía el norte seguía

☐ el río Grande ☐ el río Colorado ☐ el Red River

5) Leyes de agua y de propiedad común en el Sudoeste vienen de

☐ Mexico ☐ los estados del este ☐ Inglaterra

6) Las casas de Sudoeste eran de

☐ madera ☐ bloques de concreto ☐ adobe

7) Los Indios de Arizona que eran una gran civilización y luego desaparecieron eran los

☐ Hohokam ☐ Zunis ☐ Navajo

8) Los presidios eran necesarios en la colonización porque

☐ eran lugares para juntas sociales ☐ proveían protección de los Indios ☐ eran centros religiosos

9) Este animal era una necesidad para los pioneros.

☐ el cerdo ☐ el gato ☐ la mula

10) Él fué naufragado cerca de la costa del este de Texas, fué el primer Europeo que cruzó el Sudoeste, y escribió una "memoria" que es importante hasta este día

☐ cabeza de Vaca ☐ Coronado ☐ Hernán Cortéz

PUPIL_____ TEACHER_____

GRADE_____ SCHOOL_____ TOTAL CORRECT:_____ SOCIAL STUDIES_____
Science_____

CIENCIA (SEXTO GRADO)

1) El ganado que era apresiado en el Sudoeste porque necesitaba poca agua es
☐ Charolais ☐ Hereford ☐ Longhorn

2) Un animal híbrido que hacía cargas pesadas en el Sudoeste era
☐ la mula ☐ el burro ☐ el caballo

3) Una manera fácil de sacar el mineral de la mina es
☐ lavándola ☐ calentándola ☐ mezclándola con sol

4) Mineros sabrían que clase de mineral habían encontrado al
☐ aplastándolo ☐ calentándolo ☐ lavándolo

5) Ecología viene de la palabra Griega "oikos que quire decir
☐ casa ☐ vida ☐ plantas y animales

6) Depósitos de oro se encuentran en
☐ mármol ☐ pizarra ☐ cuarzo

7) La serie de paso a paso de comer y ser comido se llama
☐ la tela de la vida ☐ el biome ☐ la cadena de comer

8) El modo en que toda cosa viviente afecta a cada uno se llama
☐ la cadena de comer ☐ la tela de vida ☐ ecología

9) La planta que guarda agua es
☐ el cañamo ☐ el tabaco ☐ el cacto

10) En la tierra media-seca del Sudoeste_____ es necesaro
☐ oceanografía ☐ irrigación ☐ polución